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1915/16-1921/22



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Volume 4

Number 5

May, 1915

Amherst, Massachusetts

Published by the College in November, December,
January, April, May and June

Entered as second-class matter at the Post-Office at
Amherst, Massachusetts

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Amherst College Bulletin

ANNOUNCEMENT OF COURSES 1915-1916



Volume 4

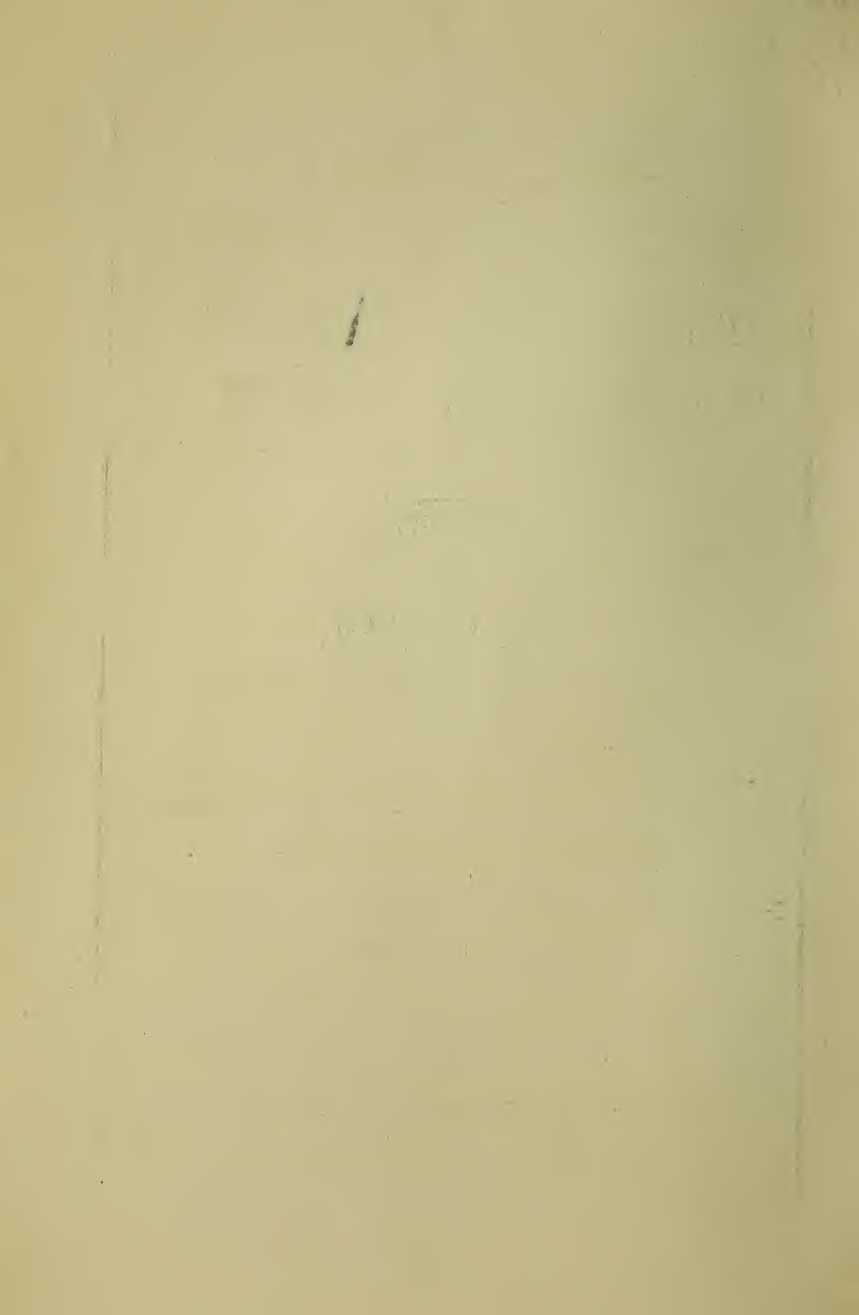
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Course of Study

ALL candidates for the Degree of Bachelor of Arts must complete forty semester courses which shall include Mathematics 1, 2; English 1, 2; two years of an ancient language; two years of science in the group Biology, Chemistry and Physics; and in addition to the forty courses, the required work in Public Speaking 2 and 3 and Physical Education 2, 4, and 6.

A reading knowledge of German *or* a Romance language (French, Italian or Spanish) is required for a degree.

The course of study must be so arranged that it will include three majors and one minor *or* two majors which shall begin not earlier than Sophomore year.

A major is a subject studied six consecutive semester courses; a minor, a subject studied four consecutive semester courses. Majors may be (1) subjects which have been studied in Sophomore year, or (2) subjects in which parallel courses are completed in either Junior or Senior year. Parallel courses in Junior year do not constitute a minor.

All courses are assigned three hours each week, except Mathematics 1 and 2 and Greek A, B, which are four-hour courses. In the numbering of the courses an odd numeral denotes the first semester, an even numeral the second semester.

Every student is required to take five courses in each semester. No student is allowed to take more than six courses in a semester.

STUDIES OF SOPHOMORE YEAR

CLASS OF 1918 ONLY

1. Ancient Language continued.

One subject from each of the following groups:

2. A. English, Modern Language, Music.
3. B. Biology, Chemistry, Mathematics, Physics.
4. C. History, Philosophy.
5. Elective.
6. Physical Education, both semesters.
7. Public Speaking, first semester.

If the reading requirement of a modern language has not been satisfied during Freshman year a modern language must be elected in Sophomore year.

STUDIES OF JUNIOR YEAR

CLASS OF 1917

OLD PLAN

- A** { 1. *Major 1*
 2. *Major 2*
 3. *Major 3*

or NEW PLAN

- B** { 1. *Major 1*
 2. *Major 2*
 3. *Elective*

One subject from Biology, Chemistry, Economics,
 Geology, Mathematics, Philosophy or Physics.

4.
-

5. *Elective*
 6. *Physical Education, both semesters.*

STUDIES OF SENIOR YEAR

OLD REQUIREMENT

CLASSES OF 1916, 1917

In Senior year all students are required to complete the second major, in case it has not been completed in Junior year, the third major, a minor, and two elective courses, or three elective courses if the new degree requirements of two majors for the degree are adopted.

OLD PLAN

- A** { 1. *Major 2*
 2. *Major 3*
 3. *Minor*

or NEW PLAN

- B** {
- 1. Major 1
 - 2. Major 2
 - 3. Elective
 - 4. Elective
 - 5. Elective
 - 6. *Debates* } (Extra)
 - Elective* }

RULES FOR THE ELECTION OF STUDIES

Choice of electives is made for the year and may be changed only by permission of the Administration Committee. No change of electives will be allowed later than the second week of the first semester.

Choice of electives for the following year must be made on or before the Saturday preceding the semester examinations in June. When choice is not made by the specified time, a fee is imposed, two dollars for the first day and fifty cents for each subsequent day's delay during the regular college session. For a change of electives a fee of two dollars is imposed.

The card of elections must be approved and signed by the advisor before it is handed in.

No course of less than a year in any subject may be counted toward a degree, except as provided by correlation of subjects below.

a. Economics 5 and Political Science 6 may count as a year course.

b. Astronomy 2 or 4 preceded by Physics 3 or 5, or Mathematics 3 or 5, in the first semester of Senior year, may be counted as a year course, which with Astronomy 1, 2 or 1, 4 may constitute a minor.

Not more than two courses taken simultaneously in one subject or under one instructor may count toward a degree.

No student may elect more than eight semester courses in any subject unless he is permitted to do so by the department and the Instruction Committee. In reckoning these eight courses in the English department the courses of Freshman and Sophomore years are not included.

NOTE. Early in his college course the student should note the prerequisites of the various departments, and especially of the scientific courses, in order that he may not be prevented from making the elections which he desires.

ASTRONOMY AND NAVIGATION

1. General and descriptive astronomy.

PROFESSOR TODD.

Elective for Juniors.

2. History of navigation; instruments of navigation; compass errors and their correction; finding the ship's position; sextant practice. (Mathematics 1, 2, and Astronomy 1 requisite.)

PROFESSOR TODD.

Elective for Juniors.

4. Practical astronomy, observatory work with equatorial, transit and spectroscope.

(Mathematics 1, 2, 4, 5, and Astronomy 1 requisite.)

PROFESSOR TODD.

Elective for Seniors.

BIBLICAL LITERATURE

1. Old Testament: the formative centuries, to the time of the literary prophets. Beginnings of the various strains of literature: historic, prophetic, poetic, didactic.

PROFESSOR GENUNG.

Elective for Juniors.

2. Prophecy and other literature to the Chaldean exile; culmination and decline of prophecy; lines of post-exilic literature.

PROFESSOR GENUNG.

Elective for Juniors.

BIOLOGY

1. Systematic and economic zoology of the invertebrates.

Laboratory work two hours a week.

PROFESSORS TYLER and LOOMIS.

Elective for Freshmen.

2. Systematic and economic zoology of the vertebrates.

Laboratory work two hours a week.

PROFESSORS TYLER and LOOMIS.

Elective for Freshmen.

3. Evolution of the animal kingdom. Laboratory work; dissection and microscopic study of the principal forms of animal life. As far as possible the lines of evolution leading to higher animals and

man are traced. The laws governing human development and the structures and affinities of the great divisions of the animal kingdom are investigated.

Laboratory work two hours a week.

PROFESSOR TYLER.

Elective for Sophomores.

4. Evolution and distribution of the vertebrates.

(Biology 3 requisite.) Laboratory work two hours a week.

PROFESSOR LOOMIS.

Elective for Sophomores.

7, 8. Evolution of the plant kingdom. The progress of plant life from the lower to the higher forms is studied by means of lectures and laboratory work upon certain types selected as representatives of the main groups of plants.

Laboratory or field work two hours a week. PROFESSOR GOODALE.

Elective for Sophomores.

9. Anatomy, including comparative anatomy of the vertebrates, taken up from the point of view of the origin of the structures of the human body.

Laboratory work two hours a week.

PROFESSOR LOOMIS.

Elective for Juniors.

10. Human Physiology.

Laboratory work two hours a week.

PROFESSOR PHILLIPS.

Elective for Juniors.

11. Biological problems.

(Biology 4 requisite.)

PROFESSOR LOOMIS.

Elective for Seniors.

12. Anthropology.

(Biology 4 requisite.)

PROFESSOR TYLER.

Elective for Seniors.

CHEMISTRY

1. General chemistry; the non-metallic elements and their compounds.

Three hours class-room and two hours laboratory work each week.

PROFESSORS HOPKINS and DOUGHTY, and DR. ZINN.

Elective for Freshmen.

2. General chemistry; the metallic elements and their compounds.
Three hours class-room work and two hours laboratory work each week.

PROFESSORS HOPKINS and DOUGHTY, and DR. ZINN.

Elective for Freshmen.

3. Inorganic chemistry; with especial emphasis on ionic hypothesis and chemical equilibrium and their applications to the reactions of analytical chemistry.

Two hours class-room work and three hours of laboratory work each week.

(Chemistry 1, and 2 requisite. Students electing this course are advised to take Physics 1 and 2.)

PROFESSOR DOUGHTY, and DR. ZINN.

Elective for Sophomores.

4. Qualitative analysis; reactions and detection of the common metallic and acidic ions.

Two hours class-room work and three hours laboratory work each week

(Chemistry 1, 2, and 3 requisite)

PROFESSOR DOUGHTY, and DR. ZINN.

Elective for Sophomores

5, 6. Quantitative analysis; chiefly laboratory work in gravimetric and volumetric analysis.

Six hours laboratory work each week.

(Chemistry 1, 2, 3, and 4 requisite.)

DR. ZINN.

Elective for Juniors.

7, 8. Organic chemistry; an introduction to the chemistry of the compounds of carbon. General theory of organic chemistry and preparation of typical compounds.

Three hours class-room and three hours laboratory work each week.

(Chemistry 1, 2, 3, and 4 requisite.)

PROFESSOR DOUGHTY.

Elective for Juniors.

ECONOMICS

1, 2. Outlines of economics.

PROFESSORS CROOK and HAMILTON.

Elective for Juniors.

3. Public finance; the principles of public revenues and expenditures, with special emphasis on the problems of taxation.

(Economics 1 and 2 requisite.)

PROFESSOR CROOK.

Elective for Seniors.

5. Social control of industrial activity.

Economics 5 may be combined with Political Science 6 to count as a year course.

(Economics 1 and 2 requisite.)

PROFESSOR HAMILTON.

Elective for Seniors.

8. Labor problems, including trades-unionism and the wage question.

(Economics 1 and 2 requisite.)

PROFESSOR CROOK.

Elective for Seniors.

The Department conducts a seminar course during the winter months, to which those are admitted who have attained high standing in Economics 1.

ENGLISH

1, 2. Introductory course; introduction to literary forms by the study of a few masterpieces; five plays of Shakespeare, a Greek tragedy, the English Bible, essays of Carlyle and Stevenson, poems of Burns and Tennyson; themes and reports.

5, 6. General introduction to English Literature, from the Anglo-Saxon period through the nineteenth century.

Elective for Sophomores.

7. English Literature of the Victorian Age; essayists and critics; lectures, readings, discussions.

8. Continuation of 7; the Victorian poets.

PROFESSOR GENUNG.

Elective for Juniors.

9, 10. The Drama as a species of art, its aims, principles, and methods; Greek, Roman, French, German, and English dramas as examples and illustrations.

PROFESSOR CHURCHILL.

Elective for Juniors.

15. Elizabethan Literature, 1557-1604; study of lyric and dramatic poetry; early English prose.

Elective for Juniors.

16. English literature of the seventeenth century; study of the English epic; the early novel; the development of modern prose.

Elective for Juniors.

17, 18. Advanced Composition.

(Courses 17, 18 are open with the consent of the instructor to Seniors and to specially qualified Juniors.)

PROFESSOR UTTER.

19, 20. Critical study of English poets: Pope, Cowper, Burns, Byron, Shelley, Wordsworth.

(For English 19 and 20, two courses chosen from 7 to 16 are requisite as precedent or parallel courses.)

PROFESSOR CHURCHILL.

Elective for Seniors.

21 American Literature.

Elective for Seniors.

22. Recent authors, English and American.

Elective for Seniors.

23. Old English (Anglo-Saxon). Cook-Sievers' *Grammar of Old English*; Sweet's *Anglo-Saxon Primer*; Bright's *Anglo-Saxon Reader*; *Beowulf*; lectures on the origin and development of Old English.

PROFESSOR CHURCHILL.

24. Old English Poetry. *Beowulf* continued; Middle English, especially Chaucer; *Prologue to the Canterbury Tales*; lectures on the history of Middle English and its development into Modern English; Sweet's *Second Middle English Primer*.

PROFESSOR CHURCHILL.

25. Old English Literature. This course is given in alternate years with the linguistic course, 23, and is devoted to the literature of the period. Knowledge of Anglo-Saxon is not required.

PROFESSOR CHURCHILL.

Elective for Juniors.

26. Middle English Literature. This course is given alternate years with 24. Special attention is paid to Middle English lyrics, *Piers Plowman*, the Arthurian tales, miracle plays, Chaucer. Knowledge of Middle English is not required.

PROFESSOR CHURCHILL.

Elective for Juniors.

GEOLOGY

1. Structural and dynamical geology and physiography.

Six excursions are required during the year, each taking a full afternoon. They are set for different afternoons in the week so as to interfere with other work as little as possible. Absences incurred in other courses because of these excursions are cancelled. For this course the elements of chemistry are required.

PROFESSOR EMERSON.

Elective for Juniors.

2. Historical geology, paleontology.

For this course Geology 1 is requisite, and Biology 1 and 2 are desirable.

PROFESSOR EMERSON.

Elective for Juniors.

3. Field and laboratory geology.

Two full afternoons a week required; mapping a part of the old lake beds as long as the weather allows, followed by mineralogy.

(Geology 1 and 2 requisite.)

PROFESSOR EMERSON.

Elective for Seniors.

4. Mineralogy continued until the weather allows field work, when a survey will be made of an area of rocks in the Holyoke Range.

Two full afternoons a week.

(Geology 1 and 2 requisite.)

PROFESSOR EMERSON.

Elective for Seniors.

5. General course in mineralogy and crystallography.

(Chemistry 1 and 2 requisite.)

PROFESSOR EMERSON.

Elective for Seniors.

6. Optical mineralogy, petrography.

(Geology 5 requisite.)

Elective for Seniors.

7, 8. Paleontology. Special study of invertebrate animals or of plants.

(Geology 1, 2 and Biology 1, 2 or 7, 8 requisite.)

PROFESSOR EMERSON

(Laboratory hours in courses 3 to 8 are arranged with the teacher.)

Elective for Seniors.

GERMAN

1, 2. Elementary course; grammar, pronunciation, composition, colloquial exercises, syntax, translation from prose selections. *Equivalent to entrance German A.*

PROFESSORS EASTMAN and MANTHEY-ZORN.

3, 4. Prose composition, with review of grammar; reading of modern prose; Schiller and Goethe: a representative work of each author; composition and free reproduction. *Equivalent to entrance German B.*

PROFESSORS EASTMAN and MANTHEY-ZORN.

5a. Goethe's dramas; lectures and essays.

PROFESSOR EASTMAN.

5b. The German drama of the nineteenth century; Grillparzer, Hebbel; lectures and essays.

PROFESSOR MANTHEY-ZORN.

6. Goethe, *Faust*; lectures on the history of the Faust legend; Goethe's life; essays.

PROFESSORS EASTMAN and MANTHEY-ZORN.

7, 8. The German novel of the nineteenth century.

PROFESSOR EASTMAN.

Elective for Sophomores.

11. Middle High German; grammar; reading of selections from the *Nibelungenlied*.

Elective for Juniors.

12. Middle High German; Walther von der Vogelweide and other minnesingers.

Two semesters in addition to 5 and 6 requisite.

Hours arranged at the convenience of instructor and students.

PROFESSOR EASTMAN.

Elective for Juniors.

GREEK

A, B. Course for students beginning Greek. *Anabasis* and prose composition; four hours a week through the year.

PROFESSOR ELWELL.

Elective for Freshmen.

C. Course for students continuing Greek. *Iliad* and prose composition; three hours a week through the first semester.

PROFESSOR ELWELL.

Greek A, B and C are given to three or more students on application.

To obtain credit for a year course, those who complete Greek C should take Greek 2.

Elective for Freshmen.

1. Homer, *Odyssey*.

2. Plato; *Apology* and *Crito*.

PROFESSOR SMITH.

Elective for Freshmen.

3. Introduction to Greek tragedy. Sophocles, *Antigone*; Euripides, *Hippolytus*; lectures on the development of tragedy and the theatre; study of other selected dramas in an English Translation.

PROFESSOR SMITH.

Elective for Sophomores.

4. Aristotle; *Ethics*; or Marcus Aurelius Antoninus: *To Himself*.

PROFESSOR SMITH.

Elective for Sophomores.

5. The Greek historians: Herodotus, Thucydides.

PROFESSOR ELWELL.

Elective for Juniors.

6. The New Testament, the Acts of the Apostles.

PROFESSOR ELWELL.

Elective for Sophomores.

9. Greek Literature; Prose; Selections; lectures.

PROFESSOR SMITH.

Elective for Juniors and Seniors.

10. Greek Literature; Poetry; Selections; lectures.

PROFESSOR SMITH.

Elective for Juniors and Seniors.

HISTORY

1. The early Middle Ages; the passing of the Roman Empire and the beginnings of Christianity; Feudalism; the Crusades and other characteristic phenomena of the period.

PROFESSOR THOMPSON.

Elective for Sophomores.

2. The later Middle Ages; the development of nationalities; the culture and state of the Middle Ages; the Italian cities; the Renaissance and the Protestant Revolt.

PROFESSOR THOMPSON.

Elective for Sophomores.

3. English history, 1066-1689; the growth of the constitution; the Reformation; the Puritan Revolution; the Restoration; the Revolution of 1689.

PROFESSOR GALLINGER.

Elective for Juniors.

4. English history since 1689; the development of cabinet government; the struggle with France; the industrial revolution; the expansion of England.

PROFESSOR GALLINGER.

Elective for Juniors.

9. European history, 1648-1815; the age of Louis XIV; the rise of Prussia and Russia; the enlightened despots; the French Revolution; The Napoleonic Wars.

PROFESSOR GALLINGER.

Elective for Juniors.

10. European history since 1815; the reconstruction of Europe; the revolution of 1848; the unification of Italy and Germany; social and industrial progress; the expansion of Europe.

PROFESSOR GALLINGER.

Elective for Juniors.

11. Political and constitutional history of the United States to the election of Jackson, 1783-1828.

PROFESSOR THOMPSON

Elective for Seniors.

12. Political and constitutional history of the United States since the election of Jackson.

PROFESSOR THOMPSON.

Elective for Seniors.

HYGIENE AND PHYSICAL EDUCATION

3, 4. Physical exercise in the form of (A) Gymnastics and Military evolutions, or (B) Aquatics.

Sophomores unable to pass the swimming requirements of the College may take (B).

5, 6. Physical exercise, in the form of Gymnastics, Military Evolutions, and Dancing.

LATIN

1. Cicero, *De Senectute* or *De Amicitia*: Livy, selections from Books I, XXI, and XXII.

2. Horace, selections from *Odes* and *Epodes*: Ovid, *Metamorphoses*.
PROFESSORS COWLES, HOUGHTON, and BENNETT.

3. Plautus, *Trinummus*; Terence, *Adelphoe*, with lectures on the Roman theatre, the origin and development of the Latin drama, and its influence on later writers. Selections from Catullus and other Roman poets.

4. Tacitus, *Agricola* and *Germania*. Selections from the *Letters* of Pliny the Younger. A study of the times in relation to the literature of this period; characteristics of the Silver Age Latinity. Illustrated lectures on Roman life and monuments.

PROFESSORS COWLES and BENNETT.
Elective for Sophomores.

5. Satire; the *Satires* and *Epistles* of Horace with emphasis on his philosophy of life. Selections from the *Satires* of Persius and Juvenal. Lectures on Satire as a species of literature.

PROFESSOR HOUGHTON.
Elective for Juniors.

6. Silver Age prose writers. The *Annales* and *Historiae* of Tacitus with emphasis on his style and method. Selections from Quintilian, Seneca and Petronius. Lectures on writers of history and romance.

PROFESSOR HOUGHTON.
Elective for Juniors.

7. Lucretius; reading of selected books of the *De Rerum Natura* with emphasis on the philosophic and literary aspects of the poem. Lectures on the development and influence of Epicureanism.

PROFESSOR HOUGHTON.
Elective for Juniors.

8. Vergil, *Aeneid*, Books VII–XII. The works of Vergil with especial reference to their literary qualities, and the poet's influence on subsequent literature.

PROFESSOR BENNETT.

Elective for Juniors.

MATHEMATICS

1. Lines, planes and angles in space, problems in mensuration of solids; plane trigonometry.

2. Topics from advanced algebra; introduction to analytical geometry.

Those who at entrance have presented credit for mathematics b, d, and f are not required to take mathematics in college. If they desire to continue the subject, they should elect Mathematics 11 and 2.

Those who have presented one point credit in advanced mathematics are required to take a year of mathematics in college and should elect Mathematics 11 and 2.

Those who have presented $\frac{1}{2}$ point credit in advanced mathematics are required to complete Mathematics 1 and 2.

3. Analytical geometry continued; introduction to calculus.

Elective for Sophomores.

4. Differential and integral calculus.

Elective for Sophomores.

5. Calculus continued; introduction to differential equations.

Elective for Juniors.

6. Vector analysis, with special applications to analytical mechanics.

Elective for Juniors.

7. Analytical mechanics; differential equations.

Elective for Seniors.

10. Introduction to the theory of functions.

Elective for Seniors.

Drawing and Descriptive Geometry

11. Elements of Descriptive Geometry, Drawing and Lettering. Three classroom exercises and six hours of drawing per week. (Solid Geometry requisite.)

12. Advanced Descriptive Geometry and Drawing. Three class-room exercises and six hours of drawing per week.

(11 requisite.)

13. Descriptive Geometry of Warped Surfaces and Perspective Drawing. Nine hours per week. Hours to be arranged.

(11, 12 requisite.)

14. Mechanical Drawing; Shades and Shadows. Nine hours per week. Hours to be arranged.

(11 requisite.)

MUSIC

1, 2. Theory of Music; harmony.

Tu., Thu., 11.30, Music Room, PROFESSOR BIGELOW.

(Chorus, Mon., 7, Sun., 11.50. Orchestra, Mon., Thu., 7.30.)

Elective for Sophomores.

3, 4. The art of Music, its development and forms; appreciation of masterpieces.

Chorus and orchestra as above. (1, 2 not requisite.)

Mon., Wed., 8.35, Fri., 2, PROFESSOR BIGELOW.

Elective for Sophomores.

5, 6. The Music Dramas of Richard Wagner. *Die Meistersinger*, *Der Ring des Nibelungen*, *Parsifal*, etc., as time may permit.

PROFESSOR BIGELOW.

This course may be used to complete a major in either Music or German.

Pianos and a large orchestrelle are placed at the disposal of students taking these courses.

Elective for Juniors.

7, 8. Chorus and Orchestra.

Chorus, Mon., 7, Sun., 11.50. Orchestra, Mon., Thu., 7, PROFESSOR BIGELOW.

During the college year 1915-1916 the oratorios *Messiah* and one to be chosen will be given by the combined choruses and orchestras of Amherst and Smith Colleges.

Two rehearsals, amounting to an average of three hours a week are required, the same number of absences being allowed as in any other course. Students from all classes may become members of the orchestra or chorus and receive credit as follows: four semesters

of such work is credited as a semester course; less than two consecutive semesters is not counted. Students may substitute oratorio credit for one regular course in the last semester of the four required for credit, provided the course so replaced is not in a major or a minor subject, and notice of such substitution is filed in advance at the Registrar's office.

College Choir

Students who have good voices and have had experience in singing may become members of the choir, whenever there are vacancies. They receive remuneration for their services, in return for which a faithful performance of duty is required.

The duties of the choir are to lead singing daily at morning prayers and at the Sunday morning service, and to attend such choir and chorus rehearsals as may be appointed.

PHILOSOPHY

1. Logic. A study of the aims and methods of thinking.

PROFESSORS MEIKLEJOHN and MR. AYRES.

Elective for Sophomores.

2. Ethics. A study of the nature and significance of conduct.

PROFESSOR NEWLIN.

Elective for Sophomores.

3. General psychology.

The aim of the course is to acquaint the student with general psychology, both in theory and in its various applications.

PROFESSOR TOLL.

Elective for Juniors.

4. Advanced psychology. A detailed study of some of the problems and theories of modern psychology.

PROFESSOR TOLL.

Elective for Juniors.

5. History of ancient philosophy. Lectures, readings and discussions.

PROFESSOR TOLL.

Elective for Juniors.

6. History of modern philosophy. Lectures, readings and discussions.

PROFESSOR NEWLIN.

Elective for Juniors.

7. Philosophy. A study of political ethics with special reference to its bearing on social problems; aesthetics; philosophy of religion.

1, 2 or 5, 6 requisite.

PROFESSOR NEWLIN.

Elective for Seniors.

8. Social ethics (seminar). A study of philosophical principles in their application to the modern problems of philanthropy, industry and social life.

1, 2 or 5, 6 requisite.

PROFESSOR NEWLIN.

Elective for Seniors.

Instructor's approval requisite to election of this course.

PHYSICS

1, 2. Elementary mechanics; equilibrium and motion of solids, liquids and gases; capillarity, and molecular forces; heat; electricity and magnetism; sound and light.

PROFESSORS KIMBALL, J. O. THOMPSON and WESTHAFFER.

Elective for Sophomores.

Students who are credited with courses 1 and 2 may choose either Course 3 followed by 4, 6 or 8, or Course 5 followed by 4 or 6.

3. Diffraction and polarized light with introduction to thermodynamics.

PROFESSOR KIMBALL.

4. Electricity and magnetism and electrical measurement.

PROFESSOR J. O. THOMPSON.

5. Dynamo-electric machinery, and theory of alternating currents of electricity.

PROFESSOR J. O. THOMPSON.

6. Electric discharge through gases; radioactivity and electric waves.

PROFESSOR KIMBALL.

8. Thermodynamics applied to problems in physical chemistry.
PROFESSOR WESTHAFFER.

9, 10. Advanced laboratory work, open to those who have completed four semesters in physics. Six hours laboratory work each week.

PROFESSOR KIMBALL.

POLITICAL SCIENCE

1. American National Government. A discussion of the historical background of the federal Constitution and of political issues in the United States, and an analysis of the organization and functions of the federal government. Especial attention is given to the actual working of the federal system and to the position of the United States in foreign affairs.

PROFESSOR GETTELL.

Elective for Juniors.

2. American State and Local Government. A discussion of the relation of the American commonwealths to one another and to the Union, and of the organization and functions of government in American commonwealths, in our Dependencies, in rural local units, and in cities. Especial attention is given to present conditions and problems in municipal government.

PROFESSOR GETTELL.

Elective for Juniors.

3. Principles of Political Science. An examination of the fundamental nature of the state, of government, sovereignty, liberty and law; a consideration of the relation of state to individual and of state to state, and a classification of states and governments.

PROFESSOR GETTELL.

Elective for Seniors.

4. Comparative European Government. A comparative study of the organization and actual working of government in the leading states of Europe. Especial attention is given to England, France, Germany, Switzerland, and Austria-Hungary.

PROFESSOR GETTELL.

Elective for Seniors.

6. Development of Political Theory. A seminar course dealing with the development of political thought, as expressed in the writings of political theorists and in actual political institutions. Attention will be given to the relation of political thought to the economic and philosophical theories of the times. (May be taken with Economics 5 as a year course.) Political Science 3 a prerequisite.

PROFESSOR GETTELL.

Elective for Seniors.

PUBLIC SPEAKING

2. Oral interpretation; declamations, one-hour course; individual training.

PROFESSOR CORSA.

Required of all Freshmen.

3. Oral interpretation; declamations, one-hour course; individual training.

PROFESSOR CORSA.

Required of all Sophomores.

5, 6. Lectures; examples for praxis; oral interpretation; orations; argumentation in debates; discussion; speeches.

This course ends May 1st. To count for the degree, courses 5 and 6 must be supplemented by course 7, which must be taken as an extra course in Senior year.

PROFESSOR CORSA.

Elective for Juniors.

7. Debates on social, economic, historical, and political questions.

PROFESSOR CORSA.

Elective for Seniors.

This is a one-hour course continuing till the end of the first semester. It may count for a degree only when taken as an extra course in combination with courses 5 and 6.

ROMANCE LANGUAGES

French

1, 2. Elementary course; pronunciation, grammar (composition), translation. Equivalent to entrance French A.

PROFESSOR STOWELL.

Elective for Freshmen.

3, 4. Advanced course; rapid reading, syntax, composition, and conversation. Equivalent to entrance French B.

PROFESSORS STOWELL and LANCASTER.

Elective for Freshmen.

5, 6. French Classics of the seventeenth, eighteenth and nineteenth centuries.

PROFESSOR LANCASTER.

Elective for Freshmen.

7, 8. The Novel.

(5 and 6 requisite.)

PROFESSOR STOWELL.

Elective for Sophomores.

9. Nineteenth Century Drama.

(5, 6, 7, and 8 requisite.) PROFESSOR LANCASTER.

Elective for Juniors.

10. The Contemporary Novel.

(9 requisite.)

PROFESSOR STOWELL.

Elective for Juniors.

11, 12. Literary Monuments of Old and Modern French.

Given on application of three or more students who have completed 9, 10 with an average of at least 80 per cent.

PROFESSORS LANCASTER and STOWELL.

Elective for Seniors.

Italian

1, 2. Pronunciation, grammar, translation. Stories by DeAmicis, Castelnovo, Farina, Verga, Fucini, and Serao; Manzoni, *I Promessi Sposi*.

PROFESSOR CHILD.

Elective for Sophomores.

5, 6. Dante, *Vita Nuova*, *Divina Commedia* (Scartazzini); lectures on Dante.

PROFESSOR CHILD.

Elective for Juniors.

Spanish

1, 2. Pronunciation, grammar, composition, translation, conversation.

(French 1 and 2 requisite; may not be taken the same year as Italian 1, 2.)

PROFESSOR CHILD.

Elective for Sophomores.

3, 4. Spanish literature of the sixteenth and seventeenth centuries: the novel, the drama and the ballads.

PROFESSOR CHILD.

Elective for Juniors.

SANSKRIT

1, 2. Whitney's Grammar, Lanman's Reader.

The course serves as an introduction to the history of religion and literature as well as to comparative philology. A few lessons are devoted to mastering the most important paradigms of nouns and verbs, and then the Story of Nala, selected fables, and a dozen old Vedic hymns are read.

PROFESSOR ELWELL.

Elective for Juniors.

SOCIAL AND ECONOMIC INSTITUTIONS

1. A study of social and political institutions and problems intended to serve as an introduction to courses in History and Political Science.

PROFESSOR GETTELL.

Elective for Freshmen.

2. A study of social and economic institutions and problems intended to serve as an introduction to courses in Economics and Philosophy.

PROFESSOR HAMILTON.

Elective for Freshmen.

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AMHERST COLLEGE

Announcement of Courses

1917—1918

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SEP 24 1917



Amherst, Massachusetts

BULLETINS OF AMHERST COLLEGE

ISSUED IN NOVEMBER, DECEMBER, JANUARY, APRIL, MAY AND JUNE

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VOLUME 6

BULLETIN NUMBER 6

JUNE, 1917

COURSE OF STUDY

ALL candidates for the degree of Bachelor of Arts must complete forty semester courses which shall include Mathematics 1, 2; English 1, 2; one year of History or Philosophy; two years of Greek or Latin; two years of Science in the group Biology, Chemistry, Physics; and in addition to the forty courses, the required work in Public Speaking 2 and 3 and Physical Education 2, 4, and 6.

A reading knowledge of German *or* a Romance language (French, Italian or Spanish) is required for a degree.

All courses are assigned three hours each week, except Mathematics 1 and 2, and Greek 1, 2, which are four-hour courses.

The course of study must be so arranged that it will include two majors, and both these majors must be completed in the Senior year.

A major consists of six semester courses in the same subject pursued either

- (1) during six consecutive semesters, or
- (2) during the Junior and Senior years.

It will be seen, therefore that the two majors required may not be begun until after the Freshman year.

All students are required to take five courses in each semester.

N. B.—Special attention is called to the fact that the requirement of ten semester courses in the Senior year may *not* be met by taking six courses in the first semester and four in the second.

No student is allowed to take more than six courses in a semester.

STUDIES OF SOPHOMORE YEAR

1. Ancient language of Freshman year, continued.
- 2, 3, 4. One subject from each of the following groups:
 - A. English, modern language, music.
 - B. Biology, chemistry, mathematics, physics.
 - C. History, philosophy.
5. Elective.
6. Physical Education 4
7. Public Speaking 3

If the reading requirement of a modern language has not been satisfied during the Freshman year a modern language must be elected in Sophomore year.

JUNIOR YEAR

1. Major 1.
2. Major 2.
3. Elective.
4. Elective.
5. Elective.
6. Physical Education 6

SENIOR YEAR

1. Major 1.
2. Major 2.
3. Elective.
4. Elective.
5. Elective.

RULES FOR THE ELECTION OF STUDIES

Choice of electives is made for the year, and may be changed only by permission of the Administration Committee. No change of electives will be allowed later than the second week of the first semester. For a change of electives approved by the Administration Committee, a fee of two dollars is imposed.

In view of the fact that the election of courses has been postponed from the usual time until this fall, attention is called to the following order of procedure which has been adopted for the opening of the college year.

All students returning to Amherst College this year must, as a preliminary step, present themselves at the Treasurer's office for the payment of tuition, room-rent, and laboratory charges. In case a student is for any reason not permitted to re-enter, the fees which he has paid will be refunded.

Having secured a receipt from the Treasurer, the candidate must obtain from the Registrar a registration card.

For this purpose the offices of the Treasurer and Registrar will be open from Monday, September 17, until noon of Thursday, September 20, and students are urged to avail themselves of the early days of this period if possible.

The registration card, properly filled out with the courses which the candidate desires to take, must be returned to the Registrar's office before 4-00 P. M. , Thursday, September 20.

In order that students may consult their advisers in connection with the choice of studies the advisers will be in their recitation rooms from 2-00 P. M. to 4-00 P. M. on this day.

For failure to return the card at the Registrar's office within the specified time a fee of one dollar for the first day and fifty cents for each additional day will be charged.

Students are requested to consult the Announcement of Courses and the schedule, and to decide as definitely as possible before the opening of the college what courses they desire to pursue.

Regular recitations will begin at two o'clock on Friday afternoon, September 21.

No course of less than a year in any subject may be counted toward a degree, except as provided by correlation of subjects below.

Not more than two courses taken simultaneously in one subject or under one instructor may count toward a degree.

No student may elect more than eight semester courses in any subject unless he is permitted to do so by the department and the Instruction Committee. In reckoning these eight courses in the English department the courses of Freshman and Sophomore years are not included.

A student who has an average of not less than seventy per cent in a semester and has not failed to complete any course in that semester, may take six courses in the following semester.

A student who has passed all his courses in a semester, but with an average grade of less than seventy per cent, may take a sixth course in the following semester, provided this course is one that he has taken before but in which he has failed.

A student who has two or more delinquencies may take a sixth course in a semester, provided (1) he has passed four courses in the preceding semester with an average grade of not less than seventy-five per cent, and (2) the extra course is one that he has taken before but in which he has failed.

A student who at the beginning of an academic year has a deficiency in a required subject must include that subject among his courses for that year, unless exception is made by the Administration Committee.

A student who has failed to meet the requirements of the college in Physical Exercise in the earlier years of the course is required to make up the delinquency in Senior year.

A student who has not passed the college requirement in Swimming by the end of Sophomore year is required to take in Junior year, until the requirement has been met, two courses in Physical Exercise, of which at least one must be Swimming.

NOTE. Early in his college course the student should note the prerequisites of the various departments, and especially of the scientific courses, in order that he may not be prevented from making the elections which he desires.

COURSES OF INSTRUCTION

In the numbering of courses an odd numeral denotes the first semester, an even numeral the second semester.

Unless the contrary is stated, members of any class are permitted to elect courses which are open to the members of a lower class.

BIOLOGY

1, 2. General biology: Introduction to biology, discussion of living and lifeless matter, the physico-chemical constitution of protoplasm, the physiology of the cell, the general characteristics of metabolic processes, the activities of protoplasm, growth and reproduction, the functions of tissues and organs, the reactions of organisms to the environment (trophisms), disease and the mechanism of immunity, adaptation, heredity, and evolution. A general outline of the great groups of the animal kingdom.

Elective for Freshmen.

Laboratory work, two hours a week.

DR. PLOUGH.

Fee, \$5.00 each semester.

3, 4. Zoology—anatomy, classification and a general discussion of the evolutionary relationships of the invertebrates and vertebrates, including their comparative anatomy and embryology.

Elective for Sophomores.

(One year of biology requisite.)

Laboratory work two hours a week.

Fee, \$5.00 each semester.

7, 8. Evolution of the plant kingdom. The progress of plant life from the lower to the higher forms is studied by means of lectures and laboratory work upon certain types selected as representatives of the main groups of plants.

Elective for Sophomores.

PROFESSOR GOODALE.

9. Genetics—The physical basis of heredity, maturation and growth of the germ cells, the behaviour of the chromosomes, fertilization and development, theories of inheritance from Darwin to the factorial hypothesis, the mutation theory, the evidence that the hered-

itary factors are carried in the chromosomes, progress in the modern science of Genetics.

Elective for Sophomores.

(One year of biology requisite.)

Laboratory work.

DR. PLOUGH.

Fee, \$5.00.

10. Bacteriology—General principles, the reactions of bacteria to their surrounding media, and the reactions of organisms to the bacteria, the mechanism of immunity, Ehrlich's side chain theory and its interpretation, antigens and anti-bodies, classification; special studies of the bacteria of water, milk, and sanitation and fermentation.

Elective for Sophomores.

Biology 10 may be combined with Chemistry 7, taken in the same year, to make a year course.

(Biology 9 requisite.)

DR. PLOUGH.

11. Embryology of the vertebrates.

Elective for Juniors.

(A year of biology requisite.)

Laboratory work.

DR. PLOUGH.

12. Cellular biology.

Elective for Juniors.

(Biology 11 requisite.)

14. Human physiology.

Elective for Juniors.

(Three semesters of biology requisite.)

Laboratory work two hours a week.

PROFESSOR PHILLIPS.

Fee, \$5.00.

CHEMISTRY

1. General chemistry; the non-metallic elements and their compounds.

Elective for Freshmen.

Three hours class-room and two hours laboratory work a week.

PROFESSORS HOPKINS, DOUGHTY and ZINN.

Fee, \$5.00.

2. General chemistry; the metallic elements and their compounds.
Elective for Freshmen.

Three hours class-room work and two hours laboratory work a week.

PROFESSORS HOPKINS, DOUGHTY and ZINN.

Fee, \$4.00.

3. Inorganic chemistry; with especial emphasis on ionic hypothesis and chemical equilibrium and their applications to the reactions of analytical chemistry.

Elective for Sophomores.

(Chemistry 1 and 2 requisite. Students electing this course are advised to take Physics 1 and 2.)

Two hours class-room work and three hours of laboratory work each week.

PROFESSORS DOUGHTY and ZINN.

Fee, \$10.00.

4. Qualitative analysis; reactions and detection of the common metallic and acidic ions.

Elective for Sophomores.

(Chemistry 1, 2, and 3 requisite.)

Two hours of class-room work and three hours laboratory work each week.

PROFESSORS DOUGHTY and ZINN.

Fee, \$10.00.

5, 6. Quantitative analysis: chiefly laboratory work in gravimetric and volumetric analysis.

Elective for Juniors.

(Chemistry 1, 2, 3, and 4 requisite.)

Six hours laboratory work each week.

PROFESSOR ZINN.

Fee, \$10.00 each semester.

7, 8. Organic chemistry; an introduction to the chemistry of the compounds of carbon. General theory of organic chemistry and preparation of typical compounds.

Elective for Juniors.

Chemistry 7 may be combined with Biology 10, taken in the same year, to make a year course.

(Chemistry 1, 2, 3, and 4 requisite.)

Three hours class-room work and three hours laboratory work each week.

PROFESSOR DOUGHTY.

Fee, \$10.00 each semester.

The following courses are offered for the benefit of students who intend to undertake graduate work in chemistry. They may be taken only by men properly qualified and with the permission of the instructor.

A. Advanced volumetric analysis. Calibration of apparatus; preparation of standard solutions; determination of hydrogen ion concentration by indicators and by hydrogen electrode, leading up to and including modern methods of water analysis.

One semester, PROFESSOR HOPKINS.

Fee, \$10.00.

B. Advanced organic preparations. Preparation and study of typical compounds; involving more difficult manipulation than those studied in courses 7, 8.

Two semesters, PROFESSOR DOUGHTY.

Fee, \$10.00 each semester.

C. Organic analysis. Determination of carbon, hydrogen, nitrogen, sulphur, and halogens in organic compounds.

One semester, PROFESSOR DOUGHTY.

Fee, \$10.00.

D. Advanced quantitative analysis; including rock analysis, gas analysis, and electro-deposition of metals.

Two semesters, PROFESSOR ZINN.

Fee, \$10.00 each semester.

The work in each of these courses consists of a minimum of nine hours a week in the laboratory, with assigned reading, conferences and examinations. A year's work can be made up of combinations of these courses, on a semester basis, by consent of the department.

NOTE.—A student intending to enter a medical school is advised to elect Chemistry 1, 2, 3, 4, 7, 8.

ECONOMICS

Juniors will elect courses 1 and 2. Seniors who have had no Economics will elect 3 and 4.

I. Introductory Courses

1, 2. The Economic Order. A study of the organization of society in its pecuniary aspects,

Elective for Juniors.

Not open to Seniors.

PROFESSORS STEWART and HAMILTON.

3, 4. Economics. A study of current problems in their relation to economic principles.

Elective for Seniors.

PROFESSOR CROOK.

II. Advanced Courses

5. Wealth and welfare. A study of the welfare of the several groups which make up industrial society as affected by the production and distribution of wealth.

Elective for Seniors.

(Economics 1, 2, or 3, 4, as in 1916—1917 catalogue, requisite.)

PROFESSORS HAMILTON and STEWART.

6. Theory of the credit system. A consideration of the nature and function of banking and credit processes and the business cycle.

Elective for Seniors.

(Economics 1, 2, or 3, 4, as in 1916—1917 catalogue, requisite.)

PROFESSOR STEWART.

7. Public finance; the principles of public revenues and expenditures, with special emphasis on the problems of taxation.

Elective for Seniors.

(Economics 1, 2, or 3, 4, as in 1916—1917 catalogue, requisite.)

PROFESSOR CROOK.

8. Labor problems, including trades-unionism and the wages question.

Elective for Seniors.

(Economics 1, 2 or 3, 4 as in the 1916—1917 catalogue requisite.)

PROFESSOR CROOK.

9, 10. Theory of modern industrialism. A genetic study of institutions and problems of contemporary society.

Elective for Seniors.

(Permission of instructors requisite.)

PROFESSORS HAMILTON and STEWART.

ENGLISH

1, 2. Introductory course; introduction to literary forms by the study of a few masterpieces; essentials of English composition; themes and reports.

Required course for Freshmen.

3, 4. Prose writers; reading and composition.

Elective for Sophomores.

PROFESSOR WHICHER.

5, 6. Nineteenth century literature.

Elective for Sophomores.

PROFESSOR UTTER.

9, 10. Elizabethan drama.

Elective for Juniors.

PROFESSOR WHICHER.

11, 12. Argumentative and expository writing.

Elective for Juniors.

PROFESSOR UTTER.

13, 14. Modern drama.

Elective for Juniors.

PROFESSOR YOUNG.

15, 16. Advanced composition.

Elective, with the consent of the instructor, for Seniors and Juniors.

PROFESSOR FROST.

21, 22. Literature and art.

Elective for Seniors.

PROFESSOR YOUNG.

FRENCH

1, 2. Elementary course. *Equivalent to entrance French A.*

Elective for Freshmen.

PROFESSOR STOWELL.

3, 4. Advanced course. *Equivalent to entrance French B.*

Elective for Freshmen.

PROFESSORS LANCASTER and STOWELL.

5, 6. French classics of the seventeenth, eighteenth and nineteenth centuries.

Elective for Freshmen.

3, 4, or the equivalent, requisite.

PROFESSOR LANCASTER.

7, 8. The novel.

Elective for Sophomores.

(5 and 6 requisite.)

PROFESSOR STOWELL.

9. Nineteenth century drama.

Elective for Juniors.

(5, 6, 7, and 8 requisite.)

PROFESSOR LANCASTER.

10. The contemporary novel.

Elective for Juniors.

(9 requisite.)

PROFESSOR STOWELL.

11, 12. Literary monuments of old and modern French.

Elective for Seniors.

Given on application of three or more students who have completed 9, 10 with a grade of at least 80%.

PROFESSORS LANCASTER and STOWELL.

GEOLGY

1, 2. General geology ; being an introductory course covering the composition, structure, dynamics, and history of the earth. Three expeditions per semester are required.

Elective for Juniors.

PROFESSOR LOOMIS.

3, 4. Paleontology; the history of the development of life, both animals and plants.

Elective for Seniors.

(Geology 2 prerequisite.)

PROFESSOR LOOMIS.

5, 6. Physical geography; a study and interpretation of the present features of the earth's surface. In the spring the work will consist of mapping an assigned area.

Elective for Seniors.

(Geology 2 prerequisite.)

PROFESSOR LOOMIS.

GERMAN

1, 2. Elementary course; grammar, pronunciation, composition, colloquial exercises, syntax, translation from prose selections. *Equivalent to entrance German A.*

Elective for Freshmen.

PROFESSOR EASTMAN.

3, 4. Prose composition, with review of grammar; reading of modern prose; Schiller and Goethe: a representative work of each author; composition and free reproduction. *Equivalent to entrance German B.*

Elective for Freshmen.

PROFESSORS EASTMAN and MANTHEY-ZORN.

5a. Goethe's dramas; lectures and essays.

Elective for Freshmen.

PROFESSOR EASTMAN.

5b. The German drama of the nineteenth century; Kleist, Grillparzer, Hebbel; lectures and essays.

Elective for Freshmen.

PROFESSOR MANTHEY-ZORN.

6. Goethe, *Faust*; lectures on the history of the Faust legend; Goethe's life; essays.

Elective for Freshmen.

PROFESSORS EASTMAN and MANTHEY-ZORN.

7, 8. The German novel of the nineteenth century.

Elective for Sophomores.

PROFESSOR EASTMAN.

11. Middle High German; grammar: reading of selections from the *Nibelungenlied*.

Elective for Juniors.

PROFESSOR EASTMAN.

SCHEDULE FOR 1917-1918

Students are not permitted to elect more than one subject from any block of hours. The odd numbers refer to courses given in the first semester.

SENIOR		JUNIOR		SOPHOMORE		FRESHMAN		MONDAY P. M.	
A1	Geol. 3, 4 Geol Lab	Hist. 9, 10 Walker 12	Hist. 1, 2 Music 3, 4	Walker 14 Music Room	Latin 1, 2a Chapel 2	2-00 o'clock. Math. 1, 2a, b Walker 5, 2			
	Math. 7, 10 Polit. Sci. 3, 4 Walker 2 Walker 12	Math. 5, 6 Phil. 3, 4 Walker 5 Walker 10	Greek 7, 8 Spanish 1, 2 Williston 3 Barrett 6	French 1, 2 German 3, 4a Latin 1, 2c Barrett 7 Barrett 3 Chapel 2	3-00 o'clock. Greek 1, 2 Math. 1, 2c, d Walker 5, 2				
3	Econ. 5, 6 Econ. 7, 8 Geol. 5, 6 Chapel 4 Chapel 5 Geol Lab	Eng. 9, 10 Eng. 13, 14 Walker 7 Walker 8	Physics 1, 2 Phys Lab	French 3, 4a Latin 1, 2e S & E Inst. 1, 2 Walker 12	4-00 o'clock. Math. 1, 2e Walker 2				
B1	Econ. 3, 4 Hist. 11, 12 Chapel 5 Walker 14	Econ. 1, 2 Chapel 4	Phil. 1, 2 Walker 8	German 5, 6a Greek 1, 2a Williston 3	7-00 o'clock. Orchestra Music Room				
2	Eng. 21, 22 Walker 8	Latin 5, 6 Phil. 5, 6 Spanish 3, 4 Chapel 6 Walker 10 Barrett 6	Chem 3, 4 French 7, 8 Chem Lab Barrett 7	German 3, 4b Greek 3 Greek 5, 6 Latin 1, 2f Williston 4 Williston 3	7-30 o'clock. Chorus Music Room				
3	Phil. 7, 8, Walker 10	Chem. 7, 8 H.of R.&B.L.1,2 Chem Lab Walker 8	Biol. 7, 8 Music 1, 2 Biol Lab Music Room	Biol. 1, 2 German 1, 2 Greek 1, 2b Williston 3	LABORATORY HOURS IN CHEMISTRY				
Monday, 2-00-6-00. Chem. 5, 6.									
Monday, 3-00-6-00. Chem. 7, 8.									
C1	Polit. Sci. 5, 6 Walker 12	Eng. 11, 12 Physics 5, 6 Williston 1 Phys Lab	Biol. 3, 4 Biol. 9 Latin 3, 4a Biol Lab Biol Lab Williston 4	French 3, 4b Latin 1, 2b Math. 1, 2a, b Math. 11, 12 Walker 5, 2 Walker 11	Tuesday, 3-00-6-00. Chem. 3, 4.				
2	Econ. 9, 10 Chapel 4	Polit. Sci. 1, 2 Physics 3, 4 Walker 12 Phys Lab	German 5, 6b Italian 1, 2 Latin 3, 4b Latin 3, 4c Chem. 1, 2 French 5, 6a Math. 1, 2c, d Walker 5, 2	Chem. 1, 2a. Chem Lab Barrett 8 Walker 5, 2	Tuesday, 4-00-6-00.				
3		Biol. 11, 12, 14 Hist. 3, 4 Biol Lab Walker 13	Eng. 3, 4 Eng. 5, 6 Walker 8 Williston 1	French 5, 6b Latin 1, 2d Math. 1, 2e Walker 2	Friday, 8-30-10-30. Chem. 1, 2b.				
Friday, 4-00-6-00. Chem. 1, 2c.									
D	H.of R.&B.L.3,4 Walker 8	Geol. 1, 2 Music 5, 6 Phys. Ex. A Geol Lab Music Room Gym	Math. 3, 4 Phys. Ex. A Walker 5 Gym	Eng. 1, 2a Eng. 1, 2b Phys. Ex. A Williston 1 Walker 7 Gym					

G	Pub. Sp. 7	Chapel 7	Phys. Ex. C	Gym	Phys. Ex. C	Gym	Phys. Ex. C	Gym
			Phys. Ex. A	Gym	Phys. Ex. A	Gym	Phys. Ex. A	Gym
			H					

NOTE.—Hours for the following courses will be arranged subject to the convenience of the instructor and students: Biol. 10; Chem. 5, 6, A B C D; Eng. 15, 16; French 10, 11, 12; German 11, 12, 13, 14; Greek 9, 10; Math. 13, 14; Philos. 9, 10. Assignment to divisions in Military Science and Tactics, Physical Exercise, and Public Speaking 2, 3 will not be made until these classes meet.

	MONDAY	TUESDAY	WED NSDAY	THURSDAY	FRIDAY	SATURDAY
A. M. 8-30	A ₁	C ₁	A ₁	B ₁	B ₁	C ₁
9-30	A ₂	C ₂	A ₂	B ₂	B ₂	C ₂
10-30	A ₃	C ₃	B ₃	B ₃	A ₃	C ₃
11-30	D	E	D	E	D	E
P. M. 2-00	B ₃	B ₁	A ₃	C ₁	A ₁	
3-00	L	B ₂	C ₃	C ₂	A ₂	
4-00	L	G		G	G	
5-00	L	H		H	H	

12. Middle High German; Walther von der Vogelweide and other minnesingers.

Elective for Juniors.

(Two semesters in addition to 5 and 6 requisite.)

PROFESSOR EASTMAN.

13, 14. The German drama of the seventeenth and eighteenth centuries.

Special Senior Course.

PROFESSOR MANTHEY-ZORN.

NOTE. A major in German may consist of two years of German and Music 5, 6.

GREEK

1, 2. Course for beginners. An introduction to the Greek language and literature. Xenophon, *Anabasis* and *Memorabilia of Socrates*; reading on Greek thought and culture, with reports and discussion.

Elective for Freshmen.

MR. BUCHANAN.

3. Course for students continuing Greek 1, 2. Homer, *Iliad*; prose composition; reports and lectures on early Greek civilization.

Elective for Freshmen.

MR. BUCHANAN.

To obtain credit for a year course, those who complete Greek 3 should take Greek 6.

5. Homer, *Odyssey*.

Elective for Freshmen.

PROFESSOR SMITH.

6. Plato, *Apology* and *Crito*.

Elective for Freshmen.

PROFESSOR SMITH AND MR. BUCHANAN.

7. Greek tragedy.

Elective for Sophomores.

PROFESSOR SMITH.

8. Aristotle, *Ethics*.
Elective for Sophomores.
 PROFESSOR SMITH.

9. The later Greek poets : Theocritus, Bion, Moschus; the Greek anthology.
Elective for Juniors.
 PROFESSOR SMITH.

10. Greek drama : Aeschylus, Aristophanes, Menander.
Elective for Juniors.
 PROFESSOR SMITH.

HISTORY

1. The early Middle Ages; the passing of the Roman Empire and the beginnings of Christianity; Feudalism; the Crusades and other characteristic phenomena of the period.

Elective for Sophomores.
 PROFESSOR THOMPSON.

2. The later Middle Ages; the development of nationalities; the culture and state of the Middle Ages; the Italian cities: the Renaissance and the Protestant Revolt.

Elective for Sophomores.
 PROFESSOR THOMPSON.

3. English history, 1066-1689; the growth of the constitution; the Reformation; the Puritan Revolution; the Restoration; the Revolution of 1689.

Elective for Juniors.
 MR. LELAND OLDS.

4. English history since 1689; the development of cabinet government; the struggle with France; the industrial revolution; the expansion of England.

Elective for Juniors.
 MR. LELAND OLDS.

9. European history, 1648-1815; the age of Louis XIV; the rise of Prussia and Russia; the enlightened despots; the French Revolution; the Napoleonic Wars.

Elective for Juniors.
 MR. LELAND OLDS.

10. European history since 1815; the reconstruction of Europe; the revolution of 1848; the unification of Italy and Germany; social and industrial progress; the expansion of Europe.

Elective for Juniors.

MR. LELAND OLDS.

11. Political and constitutional history of the United States to the election of Jackson, 1783-1828.

Elective for Seniors.

PROFESSOR THOMPSON.

12. Political and constitutional history of the United States since the election of Jackson.

Elective for Seniors.

PROFESSOR THOMPSON.

HISTORY OF RELIGION AND BIBLICAL LITERATURE

NOTE. Seniors may elect courses 1, 2 or 3, 4, but not both.

1, 2. *Introduction to the Bible:* The historical understanding of the Hebrew and Christian scriptures; the nature and extent of their inspiration and authority; their place in the new Order and service to the institutions of democracy. *Lectures, discussions, reading.*

Elective for Juniors.

PROFESSOR FITCH.

3, 4. *Classic Religious Problems:* A survey of the phenomena generally characteristic of world religions, with especial reference to their appearance in Christianity; their analysis and interpretation; their relation to contemporary life and institutions. *Discussions, lectures, reading.*

Elective for Seniors.

PROFESSOR FITCH.

HYGIENE AND PHYSICAL EDUCATION

All Freshmen, and all students entering with advanced standing, who have no credit in hygiene, are required to take personal hygiene.

A. Elementary division in gymnastics, athletics, military drill, aquatics and games.

(Required for Juniors, Sophomores, and Freshmen who have not been promoted to B.)

B. Intermediate division in gymnastics, athletics, military drill, aquatics and games.

(Required of Juniors, Sophomores, and Freshmen who have been promoted to B.)

C. Advanced division in gymnastics, athletics, military drill, aquatics and games.

(Required for Juniors, Sophomores, and Freshmen who have been promoted to C, but have not been granted privilege of election in athletics on the basis of examination.)

ITALIAN

1, 2. Pronunciation, grammar, translation. Stories by De Amicis, Castelnovo, Farina, Verga, Fucini, and Serao; Manzoni, *I Promessi Sposi*.

Elective for Sophomores.

PROFESSOR BAXTER.

5, 6. Dante, *Divina Commedia* (Scartazzini), lectures on Dante; the literature of the Renaissance.

Elective for Juniors.

PROFESSOR BAXTER.

LATIN

1. Tacitus, *Germania*; selections from the *Letters* of Cicero; Livy, selections from Books I, XXI and XXII, two hours a week. Cicero, written sight translations of selections from *De Amicitia* or *De Senectute*, one hour a week, with personal interviews with the instructor.

2. Horace, selections from *Odes* and *Epodes*; Ovid, *Metamorphoses*.

Elective for Freshmen.

PROFESSORS COWLES, BENNETT and LITCHFIELD.

3. Plautus, *Trinummus*; Terence, *Adelphoe*, with lectures on the Roman theatre, the origin and development of the Latin drama; and its influence on later writers. Especial attention will be given to the vocabulary, ante-classical forms, constructions, and the value of Roman comedy to the philologist and the student of Roman life; selections from Catullus and other Roman poets.

4. Tacitus, *Agricola*; selections from the *Letters* of Pliny the Younger. A study of the times in relation to the literature of this period; characteristics of the Silver Age Latinity. Illustrated lectures on Roman life and monuments.

Elective for Sophomores.

PROFESSORS COWLES and BENNETT.

5. Roman society under the Republic. Vergil, *Georgics*; Horace, *Satires* and *Epistles*. Studies of Roman experience in religious, educational, social, and economic problems; lectures, discussions and reports, prescribed reading.

Elective for Juniors.

PROFESSOR LITCHFIELD.

6. Roman society under the Early Empire. Tacitus, *Annals*; Petronius; Juvenal.

Elective for Juniors.

PROFESSOR LITCHFIELD.

7. Lucretius. Selected books from *De Rerum Natura*, with especial attention to its philosophic content and literary characteristics. Prescribed reading, lectures, individual reports and discussions on philosophic and scientific problems presented by the poem.

Elective for Juniors.

PROFESSOR BENNETT.

8. The Roman epic. Vergil, *Æneid*, Books VII-XII. Development of epic poetry among the Romans, with especial emphasis on its national character. Lectures, prescribed reading, reports and discussions on the historical and literary aspects of the *Æneid*.

Elective for Juniors.

PROFESSOR BENNETT.

MATHEMATICS

1. Lines, planes and angles in space, problems in mensuration of solids; plane trigonometry.

2. Topics from advanced algebra; introduction to analytical geometry.

Required course for Freshmen.

PROFESSORS OLDS, ESTY, PARKER and COBB.

Those who at entrance have credit by *examination* for Mathematics B, D and F are not required to take mathematics in college. If they desire to continue the subject, they should elect Mathematics 11 and 2.

Those who at entrance have credit by *certificate* for Mathematics B, D and F, and those who have presented for admission one point of advanced mathematics consisting of either Mathematics B and F or Mathematics D and F, are required to take a year of mathematics in college and should elect Mathematics 11 and 2.

Those who have presented for admission one-half point of credit in advanced mathematics, or one point consisting of Mathematics B and D, are required to take Mathematics 1 and 2.

3. Analytical geometry continued: introduction to calculus.

Elective for Sophomores.

PROFESSOR OLDS.

4. Differential and integral calculus.

Elective for Sophomores.

PROFESSOR OLDS.

5. Calculus continued; introduction to differential equations.

Elective for Juniors.

PROFESSOR OLDS.

6. Vector analysis, with special applications to analytical mechanics.

Elective for Juniors.

PROFESSOR ESTY.

7. Analytical mechanics continued.

Elective for Seniors.

PROFESSOR ESTY.

10. Introduction to the theory of functions.

Elective for Seniors.

PROFESSOR COBB.

Descriptive Geometry and Drawing

11. Elements of descriptive geometry, drawing and lettering.

Elective for Freshmen.

(Solid Geometry requisite.)

Three classroom exercises and six hours of drawing per week.

PROFESSOR PARKER.

12. Advanced descriptive geometry and drawing.

Elective for Freshmen.

Three class-room exercises and six hours of drawing per week.
(11 requisite.)

PROFESSOR PARKER.

13. Descriptive geometry of warped surfaces; perspective drawing.

Elective for Sophomores.

(11, 12 requisite.)

Nine hours per week, arranged at the convenience of the instructor and students.

PROFESSOR PARKER.

14. Mechanical drawing ; shades and shadows.

Elective for Freshmen.

Nine hours per week, arranged at the convenience of the instructor and students.

PROFESSOR PARKER.

MILITARY SCIENCE AND TACTICS

The department will offer two elective courses. The elementary course (1, 2) will be given during the fall and spring, before and after the regular work in physical education; it may not be substituted for any other course; if taken, it must be satisfactorily completed as a requirement for a degree. The advanced course (3, 4) is intended primarily for the training of students who may be within a year called into the military service of the country. It will count for three hours of credit and may be taken as an ordinary elective subject.

1. School of the Soldier, School of the Squad, School of the Company.

Three hours drill, one hour tactics during fall term.

2. Continuation of 1. Battalion Close Order, Ceremonies.

Three hours drill, one hour tactics during spring term.

Elective for Freshmen.

3, 4. Three hours drill during spring and fall terms and two hours weekly theoretical work in military subjects. Three hours weekly theoretical work during winter term.

Designed for students who are at least twenty years old, and should ordinarily be preceded by 1, 2.

MUSIC

1, 2. Theory of music; harmony.

Elective for Sophomores.

(Chorus Mon., 7, Sun., 11.50. Orchestra, Mon., 7.30, Thu., 7.)

PROFESSOR BIGELOW.

3, 4. The art of music, its development and forms; appreciation of masterpieces.

Elective for Sophomores.

Chorus and orchestra as above. (1, 2 not prerequisite.)

PROFESSOR BIGELOW.

5, 6. The music dramas of Richard Wagner. *Die Meistersinger*, *Der Ring des Nibelungen*, *Parsifal*, etc., as time may permit.

Elective for Juniors.

This course may be used to complete a major in either Music or German.

Pianos and a large orchestrelle are placed at the disposal of students taking these courses.

PROFESSOR BIGELOW.

7, 8. Chorus and Orchestra.

(Chorus, Mon. 7, Sun. 11.50. Orchestra, Mon. 7.30, Thu. 7.)

PROFESSOR BIGELOW.

During the college year 1917-1918 two concerts will be given by the combined choruses and orchestras of Amherst and Smith Colleges.

Two rehearsals, amounting to an average of three hours a week are required, the same number of absences being allowed as in any other course. Students from all classes may become members of the orchestra or chorus and receive credit as follows: four semesters of such work is credited as a semester course; less than two consecutive semesters is not counted. Students may substitute oratorio credit

for one regular course in the last semester of the four required for credit, provided the course so replaced is not in a required subject or in a major or a minor. Special registration at the Octagon is required for Courses 7 and 8.

College Choir

Students who have good voices and have had experience in singing may become members of the choir, whenever there are vacancies. They receive remuneration for their services, in return for which a faithful performance of duty is required.

The duties of the choir are to lead singing daily at morning prayers and at the Sunday morning service, and to attend such choir and chorus rehearsals as may be appointed.

PHILOSOPHY

1. Logic. A study of the aims and methods of thinking.

Elective for Sophomores.

PROFESSORS MEIKLEJOHN and ———

2. Ethics. A study of the nature and significance of conduct.

Elective for Sophomores.

PROFESSOR NEWLIN.

3. General psychology.

The aim of the course is to acquaint the student with general psychology, both in theory and in its various applications.

Elective for Juniors.

PROFESSOR ———

4. Advanced psychology. A detailed study of some of the problems and theories of modern psychology.

Elective for Juniors.

PROFESSOR ———

5. History of ancient philosophy. Lectures, readings and discussions.

Elective for Juniors.

PROFESSOR NEWLIN.

6. History of modern philosophy. Lectures, readings and discussions.

Elective for Juniors.

PROFESSOR —————

7, 8. Philosophy. Political ethics, involving a critical study of the basis of sovereignty and of state, of the fundamental social relationships, and of their manifestations in the fields of government, business, philanthropy, etc.; aesthetics; and the philosophy of religion. During the second semester students of high rank will be permitted, subject to the instructor's approval, to do special work in the study of some current social problems in the light of philosophical principles.

Elective for Seniors.

(1, 2 or 5, 6 requisite.)

PROFESSOR NEWLIN.

9, 10. Problems in philosophy.

Special Senior Course.

PROFESSORS MEIKLEJOHN and —————

PHYSICS

1, 2. Elementary mechanics; equilibrium and motion of solids, liquids and gases; capillarity, and molecular forces; heat; electricity and magnetism; sound and light.

Elective for Sophomores.

PROFESSORS KIMBALL and J. O. THOMPSON.

Fee, \$5.00 each semester.

Students who are credited with courses 1 and 2 may choose either Course 3 followed by 4 or 6, or Course 5 followed by 4 or 6.

3. Diffraction and polarized light, heat and elementary thermodynamics.

Elective for Juniors.

PROFESSOR KIMBALL.

Fee, \$7.00.

4. Electricity, magnetism, and electrical measurements.

Elective for Juniors.

PROFESSOR J. O. THOMPSON.

Fee, \$7.00.

5. Dynamo-electric machinery, and theory of alternating currents of electricity.

Elective for Juniors.

PROFESSOR J. O. THOMPSON.

Fee, \$7.00.

6. Electric discharge through gases; radioactivity and electric waves.

Elective for Juniors.

PROFESSOR KIMBALL.

Fee, \$7.00.

POLITICAL SCIENCE

1. American national government. The historical background of the Federal Constitution and of political issues in the United States, and the organization and functions of the Federal Government. Especial attention is given to the position of the United States in foreign affairs.

Elective for Juniors.

PROFESSOR GETTELL.

2. American state and local government. The relations of the American commonwealths to one another and to the Union, and the organization and functions of government in American commonwealths, dependencies, rural local units, and cities.

Elective for Juniors.

PROFESSOR GETTELL.

3. Principles of political science. The fundamental nature of the state, of government, sovereignty, liberty and law; a consideration of the relation of state to individual and of state to state, and a classification of states and governments.

Elective for Seniors.

PROFESSOR GETTELL.

4. Comparative European government. A comparative study of the organization and actual working of government in leading states of Europe. Especial attention is given to England, France, Germany, Italy, Switzerland, and Austria-Hungary.

Elective for Seniors.

PROFESSOR GETTELL.

5. Municipal government. The nature and growth of cities, the organization of municipal government, and the functions of municipal administration. Particular attention is given to recent tendencies in American city government.

Elective, with the consent of the Instructor, for Seniors.

PROFESSOR GETTELL.

6. International law. The historical development of relations among states, and the principles and practices of international intercourse.

Elective for Seniors.

PROFESSOR GETTELL.

PUBLIC SPEAKING

2. Fundamentals of oral expression. Lectures: A study of the mechanism of the voice; correction of ordinary speech defects; exercises in proper breathing, articulation and enunciation; development of tone; selections for practice.

Required of all Freshmen.

PROFESSOR CORSA.

3. Oral interpretation and composition. Lectures: principles of speech delivery and speech preparation; exercises for practice; readings; original speeches; discussions; orations.

Required of all Sophomores.

PROFESSOR CORSA.

7. Debates on social, economic, historical and political questions.

Elective for Seniors.

This is a one-hour course open only to those Seniors who took Public Speaking 5 and 6 in 1916-1917.

PROFESSOR CORSA.

SOCIAL AND ECONOMIC INSTITUTIONS

1. A study of social and political institutions and problems intended to serve as an introduction to courses in history and political science.

Elective for Freshmen only.

PROFESSOR GETTELL.

2. A study of social and economic institutions and problems intended to serve as an introduction to courses in economics and philosophy.

Elective for Freshmen only.

PROFESSOR HAMILTON.

SPANISH

1, 2. Pronunciation, grammar, composition, translation, conversation.

Elective for Sophomores.

These courses may not be taken in the same year with Italian 1, 2.

PROFESSOR BAXTER.

3, 4. Spanish literature of the sixteenth and seventeenth centuries, the novel, the drama, and the ballads.

Elective for Juniors.

PROFESSOR BAXTER.

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AMHERST COLLEGE

Announcement of Courses

1921 — 1922



Amherst, Massachusetts

COURSE LEADING TO THE DEGREE OF BACHELOR OF ARTS

All candidates for the degree of Bachelor of Arts must complete twenty year courses which shall include: one year of mathematics; one year of English; one year (two years if elementary) of Greek or one year of Latin; two years of science in the group biology, chemistry, geology, physics; one year in the group English, foreign language, music; one year in the group history, philosophy; and in addition to the twenty courses; the required work in the public speaking, public reading, chorus or orchestra, and in physical education.

A reading knowledge of German or a Romance language (French, Italian or Spanish) is required for a degree.

No student is allowed to remain in college over two years with an entrance condition.

MAJORS

Every candidate for a degree must complete two majors during his college course.

There are two types of major, the subject major and the group major.

A subject major consists of three year courses in the same subject pursued either (1) during three consecutive years, or (2) during the Junior and Senior years. A subject major must be completed in the Senior year, and therefore, it may not be begun until after the Freshman year.

A group major consists of: (1) three courses taken in the same year and approved by the Faculty as so closely related as to form a well unified field of study; (2) assigned reading or investigation within the field of study so selected under the direction of the professor in charge. At the close of the year, candidates for group major credit will be examined upon the field of study, including the content of the courses and of the reading and investigation. A group major may not be begun until the Junior year.

A Senior or a Junior who enrolls for a group major is allowed to take only four courses.

No student shall be admitted to a group major without the written consent of the professor in charge.

A student having completed his Junior year under the group major plan will have the privilege of changing to the subject major plan for his Senior year if he so desires.

Juniors majors are open to Seniors.

REGISTRATION

A date will be announced on or before which every student must deposit his registration card at the Bureau of Information (No. 3 Walker Hall). This card should specify all the courses to be taken, and, in the case of a course requiring the consent of the instructor, the signature of the instructor must appear on the card.

For delay in registration beyond the specified time, a fee of one dollar for the first day, and fifty cents for each additional day is charged.

No credit is allowed for a course for which the student is not officially registered.

An extra course should always be designated as such on the registration card.

When a student registers for a group major he must present the written consent of the professor in charge of the major. For this purpose a space for the professors's signature is provided on the registration card.

The major chosen should be indicated on the registration card by its number.

A student who elects a group major should indicate on his registration card a fourth course which must be chosen in accordance with the usual rules.

ELECTION OF COURSES

All students are required to take five courses in each year unless they have elected a group major, and no students are allowed to take more than six courses in a year. A Senior or a Junior who enrolls for a group major is allowed to take only four courses.

Subjects should be chosen for the year. A change of electives may be made only with the consent of the Administrative Committee and upon payment of a fee of two dollars.

Not more than two courses taken simultaneously in one subject or under one instructor may count towards a degree.

No student may elect more than four year courses in any subject unless he is permitted to do so by the department and the Administration Committee.

A student who at the beginning of an academic year has a deficiency in a required subject must include that subject among his courses for that year, unless exception is made by the Administration Committee.

A student who has failed to meet the requirements of the college in physical education in the earlier years of the course is required to make up the delinquency in Senior year.

A student who has not passed the college requirement in swimming by the end of Sophomore year is required to take in Junior year, until the requirement has been met, two courses in physical education, of which at least one must be swimming.

Early in his college course the student should note the prerequisites of the various departments in order that he may not be prevented from making the elections which he desires.

EXTRA COURSES

A student may elect an extra course under the following conditions (unless a group major is elected, in which case he cannot take an extra course);—

(1) A student who has for the previous year an average grade of not less than seventy per cent and who has not failed to complete any course in that year, may elect an extra course.

(2) A student who has for the previous year an average grade of less than seventy per cent but who has passed all his courses in the previous year, may take a sixth course provided this course is one that he has taken before but in which he has failed.

(3) A student who has passed four courses in the previous year with an average grade of not less than seventy-five per cent, may elect an extra course providing it is one that he has taken before, but in which he has failed.

In all other cases extra courses may be taken only with the approval of the Administration committee.

Credit is not given for an extra course unless it is taken as a substitute for a previous delinquency or to enable the student to graduate in less than four years. Credits for extra courses may not be substituted for delinquencies subsequently incurred.

STUDIES OF FRESHMAN YEAR

1. English
2. Mathematic
3. Ancient language¹
- 4, 5. Two subjects from the following three groups, but not more than one subject from any one group :
 - { A. Foreign language
 - { B. Social and economic institutions
 - { C. Biology, chemistry, physics²
6. Public Speaking, public reading, chorus or orchestra
7. Physical education

STUDIES OF SOPHOMORE YEAR

One subject must be chosen from each of the groups 1, 2, 3, but not more than two subjects may be chosen from any one group.

1. English, a foreign language³, music
2. Biology, chemistry, mathematics, physics
3. History or philosophy
4. Elective
5. Elective
6. Public speaking, public reading, chorus or orchestra
7. Physical education

STUDIES OF JUNIOR YEAR

1. Subject major 1
2. Subject major 2
3. Elective
4. Elective
5. Elective
6. Physical education
or
- 1, 2, 3. Group major⁴
4. Elective
5. Physical education

STUDIES OF SENIOR YEAR

1. Subject major 1
2. Subject major 2
3. Elective
4. Elective
5. Elective
- or
1. 2, 3. Group major⁴
4. Elective

¹If the subject chosen is Greek 1 the student must elect Greek 2 in his Sophomore year.

²Physics 1 is open to those Freshman who have credit for Mathematics F (plane trigonometry), and to those who wish to take the subject for two or three years, and who satisfy the department that they are prepared for the work.

³If the reading requirement of a modern language has not been satisfied during Freshman year a modern language must be elected in Sophomore year.

⁴For a list of group majors to be offered during the year 1921-1922 see page 27.

COURSES OF INSTRUCTION

Each of the following courses continue throughout the year.

Unless the contrary is stated, members of any class are permitted to elect courses which are open to the members of a lower class.

For a list of the group majors open to Seniors and Juniors, see page 27.

ASTRONOMY

1. Introduction to astronomy.

Elective for Juniors.

DR. GREEN.

BIOLOGY

NOTE.—A student cannot receive credit for both 1 and 2. Courses 4 and 5 are given in alternate years.

1. Biology: introductory and general.

Elective for Freshmen.

Two lectures and four hours of laboratory work per week.

PROFESSOR PLOUGH.

Fee, \$10.00.

2. General biology. A survey of biology and its bearings, for men who expect to take only one course in this department.

Elective, with the consent of the instructor, for Sophomores.

Lectures, demonstrations, discussions, and museum work.

PROFESSOR GLASER.

3. General structure, physiology, and taxonomy of flowering plants.

Elective for Sophomores.

PROFESSOR GOODALE.

4. Microbiology.

Omitted 1921-1922. To be given 1922-1923.

(Biology 1 and Chemistry 1 requisite.)

5. General embryology and genetics.

(Biology 1 requisite.)

Elective for Sophomores.

Two lectures and three hours of laboratory work per week.

PROFESSOR PLOUGH.

Fee, \$10.00.

6. Evolution of the plant kingdom.

Elective for Sophomores.

PROFESSOR GOODALE.

7. The foundations of behavior.

Elective, with the consent of the instructor, for Juniors.

(Biology 1 or 2 requisite.)

Lectures, seminar, and laboratory work.

PROFESSOR GLASER.

Fee \$5.00.

8. Special topics in advanced biology.

Elective, with the consent of the instructor, for Seniors who have completed their science requirement.

PROFESSOR GLASER.

NOTE.—See also Geology 3 which may be counted as a course in biology instead of geology.

See also major 3.

CHEMISTRY

1. General Chemistry.

Elective for Freshmen.

Three hours class-room and two hours laboratory work a week.

PROFESSOR SCATCHARD.

Fee, \$10.00.

2. Inorganic Chemistry. Class work; introduction to theoretical chemistry with especial emphasis on the kinetic theory, theory of solutions, and applications of chemical equilibrium.

Laboratory work; inorganic preparations (first term); qualitative analysis (second and third terms).

Elective for Sophomores.

(Chemistry 1 requisite.)

Three hours class-room work and three hours laboratory work per week.

PROFESSOR DOUGHTY.

Fee, \$20.00.

3. Quantitative analysis ; chiefly laboratory work in gravimetric and volumetric analysis.

Elective for Juniors.

(Chemistry 1, 2 requisite.)

Six hours laboratory work per week.

PROFESSOR HOPKINS.

Fee, \$20.00.

4. Organic Chemistry ; an introduction to the chemistry of the compounds of carbon. General theory of organic chemistry and preparation of typical compounds.

Elective for Juniors.

(Chemistry 1, 2 requisite.)

Three hours class-room work and three hours laboratory work per week.

PROFESSOR DOUGHTY.

Fee, \$20.00.

ECONOMICS

I. INTRODUCTORY COURSES

1. The economic order. A study of "Why all of us, taken together, are as well off as we are, and why some of us are much better off and others much worse off than the average."

Elective for Juniors.

PROFESSOR STEWART.

2. Principles of economics. A study of current problems in their relation to economic principles. Some of the current problems studied are: large scale production; scientific management; competition and monopoly; wages and trade unions; rent, interest, and profits; value, money, banking, and foreign exchange; poverty and programs of reform; taxation and public credit.

Elective for Juniors.

PROFESSOR CROOK.

II. ADVANCED COURSES

3. Labor in industrial society. A study of the rise of the industrial labor class, the wages system, the conditions of employment,

the organization of employers and employes, the establishment of labor standards, and other aspects of the problem of the place of labor in industry and society.

Elective for Seniors.

(One full course in economics requisite.)

MR. THORP.

4. Problems of labor and management and the relation of labor to the financial system. Some of the questions considered are: wages and the standard of living; scientific management in relation to labor; industrial councils; trade unions and their policies; the laborer's interest in the problems of public finance, public expenditure, and budgetary control; principles of state and federal taxation and of public credit.

Elective for Seniors.

(One full course in economics requisite.)

PROFESSOR CROOK.

5. The credit system. A study of the nature and functions of banking and corporation finance and an analysis of the credit phase of the business cycle.

Elective for Seniors.

(One full course in economics requisite.)

PROFESSOR STEWART.

See also majors 3, 8, 9, 11.

ENGLISH

A. Introduction to literature.

Required course (one-half year) for Freshmen.

PROFESSOR WHICHER, DR. POWELL and DR. HAMILTON SMITH.

B. Literature of the Old Testament.

Required course (one-half year) for Freshmen.

PROFESSOR FITCH.

1. A survey of English literature. Emphasis will be laid on the study of a few representative writers.

Elective for Sophomores.

DR. POWELL and DR. HAMILTON SMITH.

2. Nineteenth Century Literature. A study of the chief writers of the Romantic and Victorian periods, with special emphasis on the development of modern thought. Students may elect to do wide general reading or to specialize in a chosen field.

Elective for Juniors.

DR. POWELL.

3. The drama as a form of art; its purpose, forms and methods; the drama of Shakespeare.

Elective for Juniors.

PROFESSOR CHURCHILL.

4. Argumentation; formal public address.

Elective for Juniors.

(This course may count as a course in public speaking instead of English.)

PROFESSOR GARRISON.

5. Modern essays. Study of contemporary essayists and practice in expository writing.

Elective for Juniors.

DR. HAMILTON SMITH.

6. Shakespeare. A detailed study of the plays of Shakespeare.

Elective, with the consent of the instructor, for Juniors.

PROFESSOR CHURCHILL.

7. Advanced composition.

Elective, with the consent of the instructor, for Juniors.

PROFESSOR WHICHER

8. American literature.

Elective for Seniors.

(This course is not open to students who have taken English 1, 2 as in the 1919-1920 catalogue.)

PROFESSOR WHICHER.

9. Play writing.

Elective, with the consent of the instructor, for Juniors.

MR. GLASS.

10. Poetry; its nature and elements; its forms and modes.
Critical study of poems as illustrations and examples.

Elective, with the consent of the instructor, for Seniors.

PROFESSOR CHURCHILL.

See also major 10 and 12.

FRENCH

1. Elementary course. *Equivalent to entrance French A.*
Elective for Freshmen.

PROFESSOR ATKINSON.

2. Advanced course. *Equivalent to entrance French B.*
Elective for Freshmen.

PROFESSOR ATKINSON and MR. LEVESQUE.

3. French classics of the seventeenth, eighteenth and nineteenth centuries.

Elective for Freshmen.

(French 2, or the equivalent, requisite.)

PROFESSOR H. E. SMITH.

4. The novel.

Elective for Sophomores.

(French 3, or the equivalent, requisite.)

PROFESSOR ATKINSON.

5. French drama.

Elective for Sophomores.

(French 3, or the equivalent, requisite.)

MR. LEVESQUE.

6. Modern French criticism. A study of Sainte-Beuve, Taine, Renan, Brunetière, Faguet, etc., as critics of *belles-lettres*, history, science, etc.

Elective, with the consent of the instructor, for Sophomores.

(French 3, or the equivalent, requisite.)

PROFESSOR H. E. SMITH.

7. French conversation. Practice in speaking French. Subject matter: modern French civilization.

Elective, with the consent of the instructor, for Sophomores.

(French 3, or the equivalent, requisite.)

MR. LEVESQUE.

See also major 5.

GEOLOGY

1. Physical and regional geography: a study of the principles and processes by which the surface of the earth is developed to its present contour, followed by interpretations of the topography of North America in particular and the other continents in less detail.

Elective for Sophomores.

PROFESSOR LOOMIS.

2. Geology: an introductory course taking up structural, economic and historical geology.

Four field trips are required in the fall, and an equivalent amount of field work in the spring.

Elective for Juniors.

PROFESSOR LOOMIS.

3. Organic evolution: a survey of the history of animal life. The important groups of the past and present, their adjustments to the environment, the fact of heredity, the laws and theories of evolution, the origin of man and the beginnings of human society are considered.

Elective for Juniors.

(Either Biology 1 or Geology 1 prerequisite.)

PROFESSORS LOOMIS and PLOUGH.

(This course may be counted as a course in biology instead of geology.)

GERMAN

1. Elementary course: grammar, pronunciation, composition, colloquial exercises, syntax, translation from prose selections.

Equivalent to entrance German A.

Elective for Freshmen.

PROFESSOR EASTMAN.

AMHERST COLLEGE

SCHEDULE FOR 1921-1922

Students are not permitted to elect more than one subject from any block of hours.

SENIOR		JUNIOR		SOPHOMORE		FRESHMAN	
A	Econ. 3 Chapel 4	Astron. 1 Polit. Sci. 1 Philos. 4	Appleton Walker 13 Walker 10	Spanish 1 Barrett 6	Greek 2 Latin 1, a Math. 1, d French 2, c	Chapel 1 Williston 4 Walker 2 Barrett 5	FOURTH HOUR IN GREEK, LATIN AND MATHEMATICS
B	Econ. 5 Philos. 5	Latin 3 Math. 3	Chapel 6 Walker 5	Chem. 2 Music 2 Spanish 2 French 5	Greek 1, a French 1, b Math. 1, c	Chapel 1 Barrett 7 Walker 2	
C	Math 4 Econ. 4 Philos. 7	Philos. 9 History 2 English 6	Library Walker 12 Library	Latin 2 Physics 1 Spanish 3	Greek 1, b German 1 Math. 1, a Latin A	Chapel 1 Barrett 3 Walker 2 Chapel 2	
D	Polit. Sci. 3 Walker 13	Greek 6 Chem. 4 Econ. 1 Latin 4 Williston 4 Physics 3	Library Chem Lab. Chapel 4 Williston 4 Phys Lab	Greek 4 French 4 Math. 2	Greek 3 German 2 Latin 1, b Math. 1, e French 2, d	Chapel 1 Barrett 3 Chapel 2 Walker 2 Barrett 7	
E	Hist. 6 Walker 14	English 4 Geol. 2 History 3	Walker 8 Geol Lab Walker 13	English 1 Walker 2	French 1, a Latin 1, c S. & E. Inst.	Barrett 7 Chapel 2 Chapel	SECTIONS IN PHYSICAL EDUCATION One section of Phys. Ed. A will meet at the D hours; another at the H hours. Phys. Ed. B, four o'clock Tuesday, Wednesday, Friday; Phys. Ed. C, five o'clock Tuesday, Wednesday, Friday.
F	German 7 Eng. 8	History 5 Physics 3 Philos. 3	Walker 14 Phys. Lab Walker 10	Biology 6 Geology 1 Italian 2 Biology 2	Biology 6 Geol Lab Barrett 6 Biol Lab		
G		English 2 History 4	Williston 1 Walker 12	Biology 3 Italian 1 Music 1	French 3 French 2, a German 3 Biology 1	Barrett 7 Barrett 3 Barrett 4 Biol. Lab	
H		Philos. 2 Physics 2 English 5	Walker 10 Phys Lab Walker 8	French 7 German 5	Biology 1	Biol. Lab	
CHORUS AND ORCHESTRA Chorus, Mon. 7 p. m., Sun. 11:50 a. m. Orchestra, Mon. 7:30 p. m., Thurs. 7 p. m.							CHORUS AND ORCHESTRA Chorus, Mon. 7 p. m., Sun. 11:50 a. m. Orchestra, Mon. 7:30 p. m., Thurs. 7 p. m.
SEMINAR COURSES Biology 7, Wednesday, 7:30 p. m. Biology 7, Thursday, 7:30 p. m.							SEMINAR COURSES Biology 7, Wednesday, 7:30 p. m. Biology 7, Thursday, 7:30 p. m.

J	Philos. 6	Library	Biology 7 Econ. 2 Hist. of Relig. 1 Geology 3 English 3	History 1 Walker 12	Chem. 1 French 2, b Latin 1, d Math. 1, b	Chem Lab Barrett 7 Chapel 6 Walker 5	German 6, Math. 5 Philos. 8, Pol. Sci. 4 Major 8	Tuesday, 4-00 p. m. Thursday, 8-00 p. m. Thursday, 4-00 p. m. Wednesday, 7-30 p. m. Wednesday, 7-30 p. m.
			Chem. 3 Lab	Chem. 2 Lab Biol. 5	Chem. 1, a Lab			
K			Chem. 3 Lab Chem. 4 Lab	Biol. 5	Chem. 1, b Lab			
L								

PUBLIC SPEAKING

The hours for Public Speaking 1, 2, 3 will be arranged in September.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
A. M. 8-95	A1	E1	A2	I2	I3	E3
9-30	B1	F1	B2	J2	J3	F3
10-30	C1	G1	C2	G2	C3	G3
11-30	D1	H1	D2	H2	D3	H3
P. M. 2-00	K1	I1	E2	L1	A3	
3-00	K2	J1	F2	L2	B3	
4-00	K3	M1	M2	L3	M3	
5-00	K5	N1	N2	L4	N3	

2. Prose composition, with review of grammar ; reading of modern prose ; Schiller and Goethe ; a representative work of each author ; composition and free reproduction. *Equivalent to entrance German B.*

Elective for Freshmen.

PROFESSOR MANTHEY-ZORN.

3. Goethe's dramas : lectures, essays, assigned readings. *Faust* ; lectures on the history of the Faust legend ; Goethe's life.

Elective for Freshmen.

PROFESSORS EASTMAN and MANTHEY-ZORN.

5. The German Novel of the nineteenth century.

Elective for Sophomores.

PROFESSOR EASTMAN.

6. The German drama of the seventeenth and eighteenth centuries.

Elective for Seniors.

PROFESSOR MANTHEY-ZORN.

7. Middle High German : epics and lyric poetry of the Age of Chivalry.

Elective for Seniors.

PROFESSOR EASTMAN.

GREEK

1. Course for beginners. An introduction to the Greek language and literature, Xenophon, *Memorabilia* ; reading on Greek thought and culture.

Elective for Freshmen.

PROFESSOR FOBES.

2. Course for students continuing Greek 1. Homer, *Odyssey*, the historians.

Elective for Freshmen.

(Greek 1 or its equivalent requisite.)

MR. BROWN.

3. Plato, *Apology* and *Crito*. Greek tragedy.

Elective for Freshmen.

(Greek 2 or entrance Greek A, B, C, H, F, requisite)

PROFESSOR FOBES and MR. BROWN

4. Greek comedy. Aristotle, *Ethics*.

Elective for Sophomores.

(Greek 3 requisite.)

PROFESSOR FOBES and MR. BROWN.

5. Greek civilization.

Elective for Juniors.

(Both Greek civilization and Roman civilization may not be taken in the same year.)

PROFESSOR H. de F. SMITH.

6. Aeschylus and Aristophanes.

Elective for Juniors.

(Greek 4 requisite.)

PROFESSOR H. de F. SMITH.

HISTORY

1. Introduction to history; historical and social geography; the transition from classical to medieval and medieval to modern times; the major non-European cultures; theories of historical change; historical method and argument.

Elective for Sophomores.

MR. SAUNDERS.

2. Modern European history, 1648-1928; the age of Louis XIV; the rise of Prussia and Russia; the enlightened despots; the French Revolution; the Napoleonic Wars; the reconstruction of Europe; the Revolution of 1848; the unification of Italy and Germany; social and industrial progress; the expansion of Europe; the historical background of the war of 1914-1918.

Elective for Juniors.

PROFESSOR GALLINGER.

3. English history, 1066-1920; the growth of the constitution; the Reformation; the Puritan Revolution; the Restoration; the Revolution of 1689; the development of cabinet government; the struggle with France; the industrial revolution; the expansion of England.

Elective for Juniors.

PROFESSOR GALLINGER.

4. The age of the Renaissance.

Elective for Juniors.

PROFESSOR F. L. THOMPSON.

5. The expansion of Europe since the Industrial Revolution. A general review of European expansion during the nineteenth century and the reaction on Europe of extra-European societies and states ; detailed study of a special topic which will be changed from year to year. For 1921-1922, the special subject will be "The European Organization of the Tropics."

Elective, with the consent of the instructor, for Juniors.

(One year course in history prerequisite.)

MR. SAUNDERS.

6. General history of the United States.

Elective for Seniors.

PROFESSOR F. L. THOMPSON.

See also Majors 5, 9 and 10.

HISTORY OF RELIGION AND BIBLICAL LITERATURE

1. The history of religions.

Elective for Juniors.

PROFESSOR FITCH.

See also Major 2.

HYGIENE AND PHYSICAL EDUCATION

All Freshmen and all students entering with advanced standing who have no credit in hygiene are required to take personal hygiene.

DR. PHILLIPS.

A. Elementary division in gymnastics, athletics, aquatics and games.

(Required for Juniors, Sophomores, and Freshmen who have not been promoted to B.)

PROFESSOR NELLIGAN AND MR. KENNEDY.

B. Intermediate division in gymnastics, athletics, aquatics and games.

(Required of Juniors, Sophomores, and Freshmen who are in neither A nor C.)

PROFESSOR MARSH, MR. WIDMAYER, AND MR. KENNEDY.

C. Advanced division. Selection of gymnastics, athletics, aquatics, and games, boxing, wrestling, squash.

(Required for Juniors, Sophomores, and Freshmen who have been promoted to C.)

PROFESSOR MARSH, MR. WIDMAYER, AND MR. KENNEDY.

ITALIAN

1. Pronunciation, grammar, translation. Stories by De Amicis, Castelnovo, Farina, Verga, Fucini, Serao; Manzoni *I Promessi Sposi*.

Elective for Sophomores.

PROFESSOR BAXTER.

2. Dante, *Divina Commedia*; lecture on Dante and his times.

Elective for Sophomores.

PROFESSOR BAXTER.

LATIN

A. Vergil, *Aeneid*, Books I-VI.

Elective for those only who do not present Latin 5 at entrance.

PROFESSOR ROWLAND.

1. Selections from the *Letters* of Cicero; Pliny, *Letters*; written sight translation of selections from Latin authors; Tacitus, *Germania*; Horace, selections from the *Odes* and *Epodes*.

Elective for Freshmen.

PROFESSORS COWLES, BENNETT AND ROWLAND.

2. Plautus, *Trinummus*; Terence, *Adelphoe*, with lectures on the Roman theater, the origin and development of the Latin drama, and its influence on later writers. Especial attention will be given to the vocabulary, ante-classical forms, constructions, and the value of Roman comedy to the philologist and the student of Roman life; selections from Catullus and other Roman poets; Tacitus, *Agricola*; Livy, selections. A study of the times in relation to the literature of this period; characteristics of Silver Age Latinity; illustrated lectures on Roman life and monuments.

Elective for Sophomores.

PROFESSOR COWLES.

3. Roman society under the Republic; Vergil, *Georgics*; Horace, *Satires* and *Epistles*. Studies of Roman experience in religious, educational, social, and economic problems; Roman society under the Early Empire. Tacitus, *Annals*; Petronius; Juvenal; lectures, discussions and reports, prescribed reading.

Elective for Juniors.

PROFESSOR ROWLAND.

4. The Roman epic. Vergil, *Aeneid*, Books VII-XII. Development of epic poetry among the Romans, with especial emphasis on its national character. Lectures, prescribed reading, reports and discussions on the historical and literary aspects of the *Aeneid*; Lucretius; selected books from the *De Rerum Natura*, with especial attention to its philosophic content and literary characteristics. Prescribed reading, lectures, individual reports and discussions on philosophic and scientific problems presented by the poem.

Elective for Juniors.

PROFESSORS COWLES AND BENNETT.

5. Roman civilization. The Roman theory of the State; development of Roman political institutions. with their relation to economic and social forces; studies in the practical operation of the constitution of the Republic and the Early Empire. Rome and the individual; studies in the development of Roman education, art, religion and ethics, character and ideals, mainly with reference to their significance for modern life. Assigned reading, lectures, discussions and reports.

Elective for Juniors.

(Both Roman civilization and Greek civilization may not be taken in the same year.)

PROFESSOR BENNETT.

MATHEMATICS

1. Elementary analysis. A study of the simplest algebraic and trigonometric functions, with application to geometry and physics.

Required course for Freshmen.

PROFESSOR.....

Those who at entrance have credit by *examination* for Mathematics B, D, and F are not required to take mathematics in college. If they desire to continue the subject, they should elect Mathematics 5 in the first term and Mathematics 1 in the second and third terms.

Those who at entrance have credit by *certificate* for Mathematics B, D, F, and those who have presented for admission one point of advanced mathematics consisting of either Mathematics B and F or Mathematics D and F, are required to take a year of mathematics in college and should elect Mathematics 5 in the first term and Mathematics 1 in the second and third terms.

Those who have presented for admission one half point of credit in advanced mathematics or one point consisting of Mathematics B and D, are required to take Mathematics 1.

2. Analytical geometry continued; differential and integral calculus.

Elective for Sophomores.

PROFESSOR OLDS.

3. Calculus continued; introduction to differential equations; vector analysis, with special application to analytical mechanics.

Elective for Juniors.

PROFESSORS OLDS AND ESTY.

4. Analytical mechanics continued; introduction to the theory of functions.

Elective for Seniors.

PROFESSORS ESTY AND COBB.

DESCRIPTIVE GEOMETRY AND DRAWING

5. Elements of descriptive geometry, drawing and lettering; mechanical drawing; shades and shadows.

Elective for Freshmen.

Three class-room exercises and six hours of drawing per week.

PROFESSOR.....

See also major 4.

MUSIC

1. Theory of music; harmony.

Elective for Sophomores.

MR. HINNERS.

Chorus, Mon., 7, Sun., 11.50. Orchestra, Mon., 7.30, Thu., 7,

2. The history of music, its development and forms from Bach to the present day; analysis of representative works; studies in aesthetic.

Elective for Sophomores.

Chorus and orchestra as above (1 not prerequisite).

MR. HINNERS.

4. Chorus and orchestra.

Chorus, Mon., 7, Sun., 11.50. Orchestra, Mon., 7.30, Thu., 7.

During the college year 1921-1922 at least three choral works will be given by the College Chorus. This work will be carried on in

conjunction with Smith College, the Orpheus Club of Springfield, and a Boston orchestra.

Two rehearsals, amounting to an average of three hours a week, are required, the same number of absences being allowed as in any other course.

This course may be taken by students in the Freshman and Sophomore years to satisfy requirement 6 in the plan of studies for those years. (See page 6.)

The course is also elective for Juniors and Seniors, and, when taken by them, counts for one-half the amount of credit given for a regular three hour course.

College Choir

The choir is open to all students who can sing. Freshmen and Sophomores are not eligible unless they are also members of the chorus. Juniors and Seniors are eligible without restrictions. Members of the choir receive a remuneration of \$60.00 per year.

PHILOSOPHY

1. Introduction to philosophy. A discussion of problems in logic, ethics and social psychology. The aims, methods and results of thinking, the nature of truth; the basis and meaning of moral principles and moral progress; the sources and limitations of human nature.

Elective for Sophomores.

PROFESSORS MEIKLEJOHN AND AYRES.

2. Psychology; survey of individual and social psychology, with some optional work in special topics such as religious experience, psychical research, advertising, etc.

Elective for Juniors.

PROFESSORS TOLL AND AYRES.

3. The place of ideas in civilization. A study of the transition from a feudal-aristocratic to an industrial-pecuniary society: classical individualism in philosophical, political and economic thought, discussed in contrast with the other intellectual traditions which are competing with it in the modern world.

Elective for Juniors.

PROFESSOR AYRES.

4 History of philosophy ; a study of the most important philosophies from the time of the Greeks to the present, by means of source books, lectures, discussions, and theses.

Elective for Juniors.

PROFESSOR NEWLIN.

5. Studies in Plato and Aristotle. The metaphysical doctrines of Plato as set forth in the *Meno*, *Phaedo*, *Republic*, *Theaetetus*, and *Philebus* with the *Sophist* if time permit, and of Aristotle in the *De Anima* and *Metaphysica*.

Elective for Seniors.

(Philosophy 4 requisite, or it may be taken concurrently.)

MR. BROWN.

6. Contemporary philosophy. The selection of the men studied will be made partly in accordance with any special interests of those who elect the course.

Elective, with the consent of the instructor, for Seniors.

PROFESSOR TOLL.

7. Political and social ethics. A study of philosophical principles in their application to modern problems in politics, industry, and social life ; aesthetics ; philosophy of religion.

Elective for Seniors.

PROFESSOR NEWLIN.

8. The philosophy of Kant. A detailed reading of the *Critique of Pure Reason* with an attempt at formulation of current philosophical problems and theories.

Elective for Seniors.

(Prerequisite, one course in philosophy.)

PROFESSOR MEIKLEJOHN.

9. Studies in modern idealism. Reading in Bosanquet's *Essentials of Logic*, Green's *Prolegomena to Ethics* and Ward's *Psychological Principles* with supplementary lectures.

Elective, with the consent of the instructor, for Juniors.

(Philosophy 1 prerequisite.)

MR. BROWN.

See also majors 2, 3, 4, 9 and 12.

PHYSICS

1. Elementary mechanics: equilibrium and motion of solids, liquids and gases; capillarity, and molecular forces; heat; electricity and magnetism; sound and light.

Elective for Sophomores.

Physics 1 is also open to those Freshmen who have credit for Mathematics F (plane trigonometry), and to those who wish to take the subject for two or three years, or who satisfy the department that they are prepared for the work.

Three hours classroom work and two hours laboratory work per week.

PROFESSORS KIMBALL, J. O. THOMPSON and DR. GREEN.

Fee, \$9.00.

The following courses are open to students who are credited with Physics 1. Physics 2 (a) may be followed by 3 (b) and 3 (c) to make a year course if preferred.

2. (a) Electricity, magnetism, and electrical measurements; (b) heat and elementary thermodynamics; (c) electric discharge through gases, radioactivity and electron theory of matter.

Three hours class-room and two hours laboratory work per week.

PROFESSORS KIMBALL and J. O. THOMPSON.

Fee, \$10.00.

3. Light, diffraction, polarization and double refraction in crystals; (b) theory of electric machinery—direct current; (c) theory of alternating currents of electricity, and applications.

Three hours class-room and two hours laboratory work per week.

PROFESSORS KIMBALL, and J. O. THOMPSON.

Fee, \$10.00.

Note.—In the above notation a, b, c refer to the first, second and third terms respectively.

POLITICAL SCIENCE

1. American Government.

(a) Organization of federal government, PROFESSOR GETTELL.

(b) Functions of federal government, PROFESSOR GETTELL.

(c) State and local government, MR. GAUS.

Elective for Juniors.

2. Comparative government. A study of problems in national and local government. The work in the second and third terms will

be devoted largely to problems of municipal government in the United States and in England, Germany, and France.

Elective for Juniors.

MR. GAUS.

3. Political theory and international relations.

(a) Political theory.

(b) International law.

(c) International relations.

Elective for Seniors.

(Political science 1 or 2 requisite.)

PROFESSOR GETTELL.

4. Development of political thought.

Elective for Seniors taking major in political science and required of those taking major 11.

Seminar reading course, PROFESSOR GETTELL.

5. The problem of administration. A study of the elements of effective administrative systems, including problems of personnel, relations with legislative and judicial organs, and relations with industry and commerce. Attention will be given to the war experience in the United States.

Elective, with the consent of the instructor, for Seniors who have previously had courses in economics or political science.

MR. GAUS.

See also majors 10 and 11.

PUBLIC SPEAKING

1. Fundamentals of oral expression.

Elective for Freshmen.

PROFESSOR GARRISON.

2. Extemporaneous speaking; informal public address.

Elective for Sophomores.

(Public Speaking 1 requisite.)

PROFESSOR GARRISON.

3. Play reading, chiefly Shakespeare.

Elective for Freshmen.

MR. GLASS.

NOTE.—Courses 1, 2 and 3 may be taken by students in the Freshmen and Sophomore years to satisfy requirement 6 in the plan of studies of those years. (See page 6.)

See also English 4 which may be counted as a course in public speaking instead of English.

SOCIAL AND ECONOMIC INSTITUTIONS

1. A study of social, political, and economic institutions and problems intended to serve as an introduction to courses in history, political science, economics and philosophy.

Elective for Freshmen only.

PROFESSOR GETTELL, MR. GAUS, MR. MAY and MR. THORPE.

SPANISH

1. Pronunciation, grammar, composition, translation, conversation.

Elective for Sophomores.

This course may not be taken in the same year with Italian 1.

PROFESSOR BAXTER.

2. Spanish literature of the sixteenth and seventeenth centuries; the novel, the drama and the ballads.

Elective for Sophomores and for Freshmen who have credit for Entrance Spanish A.

PROFESSOR BAXTER.

3. Continuation of the study of the modern novel and drama. Spanish drama of the seventeenth century. Advanced composition.

Elective for Sophomores.

(Spanish 2, or the equivalent, requisite.)

PROFESSOR BAXTER.

GROUP MAJORS OFFERED DURING 1921--1922.

Junior Majors are open to Seniors.

JUNIOR GROUP MAJORS

2. The relation of the religious experience to modern ideas.

The major deals with the absolute concepts of the religious life, their modification by and influence upon the ideas of relativity in value of the last two centuries.

History of Religions 1

Philosophy 3

Philosophy 4 or 5

PROFESSOR FITCH in charge, PROFESSORS AYRES and NEWLIN or MR. BROWN.

3. Human nature and the social order.

A special study of the influence exerted upon human nature by the social order in which it develops. Materials will be taken from Cooley, Veblen, the psycho-analysts, and the field indicated under Philosophy 3.

Philosophy 3

Economics 1

Biology 7, or a third course arranged
in conference with the instructor.

PROFESSOR AYRES in charge, PROFESSORS STEWART and GLASER.

4. The philosophy of mathematics: including especially some study of symbolic logic and of the theory of relativity.

Philosophy 6

Philosophy 4

Mathematics 3 or 4

PROFESSOR TOLL in charge, PROFESSORS NEWLIN, OLDS, ESTY and COBB.

5. Modern French criticism.

French 6

French 4

History 2

PROFESSOR H. E. SMITH in charge, PROFESSORS ATKINSON and GALLINGER.

SENIOR GROUP MAJORS

8. Standards of economic control.

A study of our experience with the development of standards in the fields of labor and finance, and an inquiry into how effectively business organizes industry.

Economics 3

Economics 5

A third course to be selected from the Departments of History, Political Science, or Philosophy, with the approval of the Professor in charge of the major.

PROFESSOR STEWART in charge, MR. THORP.

9. The problem of liberty.

The work to be done aside from the regular courses, will be chiefly on the problem of liberty, a problem which is common to the three fields of history, economics and philosophy.

History 3

Economics 2 or 4

Philosophy 3

(History 1 or 2 requisite. If History 2 has not been completed students are advised to elect it as their fourth course.)

PROFESSOR GALLINGER in charge, PROFESSORS CROOK and AYRES.

10. Nineteenth century literature.

History 6

Political Science 1

English 8

PROFESSOR WHICHER in charge, PROFESSORS THOMPSON, GETTELL and MR. GAUS.

11. Modern political and economic problems.

Political Science 2

Political Science 3

Economics 3

PROFESSOR GETTELL in charge, MR. THORP and MR. GAUS.

12. Modern social philosophy.

Philosophy 7

English 2

Political Science 4

PROFESSOR NEWLIN in charge, DR. POWELL and PROFESSOR GETTELL.

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